# A Course of Twelve Lectures
ON THE
# STRUCTURE AND DEVELOPMENT
OF THE
# VERTEBRATE SKELETON.

*Now being delivered at the Royal College of Surgeons of England,*

BY PROFESSOR HUXLEY, F.R.S.

## LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—It is of such very great importance to our further progress that we should thoroughly comprehend, from the particular point of view which I have described, the structure of the human skull, that I would venture to trouble you with a recapitulation of the main points over which we travelled at our last meeting. I pointed out to you that the human skull was composed of an axial portion and of an upper and lower arch, composing altogether the cranium and the face; that on the sides of the large osseous box which was thus formed there were three pairs of sensory organs—the organs of smell, of sight, and of hearing. In the axial portion we distinguished two divisions—very natural divisions, one of them forming the floor of the cranium proper, the other forming the principal axis of the face. The cranial portion we called the basi-cranial part of the skull, and the facial portion the basi-facial part of the axis of the skull. The basi-cranial portion was composed of the bones called the basi-occipital, the basi-sphenoid, and the pre-sphenoid; the basi-facial portion was composed of that bone which is called the lamina perpendicularis of the ethmoid, and of its continuation forward in the form of the cartilaginous internasal septum. And I stated that we might regard the bone which is developed upon the under surface—that is, the vomer, as part of it. Then the cranial arches, or the upper arches—as three, corresponding with the different segments of the cranial portion. Corresponding with the basi-occipital there were the two ex-occipitals and the supra-occipital, the whole together forming that which is known in human anatomy as the occipital bone. Then the basi-sphenoid had attached to it two portions called the great ali-sphenoids, and connected with these, and forming the upper part of the arch, were the great parietal bones. And the pre-sphenoid segment had connected with its sides the alæ minores of human anatomy, or the orbito-sphenoids, to speak in a general sense; and connected with these were the two great frontal bones, which become single in man. So that we have three pairs of upper arches, corresponding with the three segments of the basis cranii. That enumeration left certain vacuities in front and vacuities at the sides. The vacuities in front were filled up by the olfactory capsules and by the bones which surround them—that is to say, by the nasal bones above, by the bones we call lateral masses of the ethmoid at the sides, by the inferior spongy bones below these, and posteriorly by the bones of Bertin, and again underneath (if you choose to reckon it a second time) the vomer; all these parts being developed upon the primitively cartilaginous capsules of the olfactory organs. The vacant space left at the hinder part of the skull, that which would be left if the temporal bone were taken out, was of a much more complex character. This was called the temporal bone of human anatomy, consisting of a number of distinct elements, which correspond with those parts that are termed portions of the temporal bone in anthropotomy. This upper part we called the squamosal, the squamous element of the temporal bone. Then there was the portion which forms the lower part of the boundary of the auditory passage, and the lower part of the case of the Eustachian tube, and so on—that is, the tympanic portion. Then there was the great mass which we call the petrous part in human anatomy, and the mastoid portion, which were two out of the three constituents of the osseous parts of what we termed the periotic capsule—that is, the part which surrounds the internal portion of the organ of hearing. Anchylosed to these we had the styloid process, which is, again, a distinct styloid element.

That was as far as I proceeded in my last lecture. The next point will be to consider the nature of the inferior arches of the skull, and to define these with the same sort of precision, and with the same bearing and reference to our future studies.

In the first place, then, we have to consider the mass forming the upper jaw, next the bones forming the lower jaw, and then the parts which form the hyoidean apparatus; those being, speaking roughly, the three principal inferior arches of the skull. If we were to use the terms common in human anatomy, we should speak of the upper jaw upon each side, taking it as a whole, as composed of the maxilla (the upper jaw-bone proper) and of the palatine bone; these two bones, which everybody knows so well as the pterygoid bones, we should not reckon as any part of the upper maxillary apparatus, but regard them as parts of the great sphenoid bone. For the purposes of general anatomy, however, (using that term in a more proper sense than that in which it is commonly applied—viz., histology,) it would be necessary to take quite a different classification of these, and consider what their real primitive elements are. In fact, as Goethe so long ago pointed out, the bone that we call the upper jaw-bone in man is composed of two distinct pieces—an anterior and internal portion, containing the two incisor teeth, and often presenting traces of the primitive suture by which it was connected with the rest of the upper jaw—that bone thus containing these two being called the inter-maxilla or pre-maxilla. You will recollect it was one of the first steps towards the demonstration of the great community of structure existing between man and the lower animals which was made by Goethe, that the absence of the pre-maxilla was not, as had been supposed, a distinctive character of man. He showed that it was as distinct in him as in other animals, but became anchylosed at a much earlier age. So that we have to divide the maxilla of human anatomy into the pre-maxilla and the maxilla proper, being the rest of the bone. Then the palatine remains where it was; there is no need to subdivide that in any way. But we must subdivide the pterygoid, for (as I shall have occasion to point out to you more fully by-and-by, in speaking of the development of the skeleton) the parts which are comprised under the name of pterygoid are totally different in their character, and have quite a different signification. In human anatomy we speak of the pterygoid as composed of an internal and external plate. The external pterygoidean plate is a distinct outgrowth or process of the ali-sphenoid, and is a very variable element, its development differing greatly in different members of the vertebrate series. The internal pterygoidean plate, on the other hand, is originally a perfectly distinct bone, as separate a bone from the sphenoid itself as is the palatine, as is the maxilla, as is the pre-maxilla. It is this internal pterygoid plate which I shall speak of as being the pterygoid bone. So that by this analysis we arrive at four distinct elements, composing what we might call, for want of a better term, the pre-oral inferior arches of the skull (those lying in front of the mouth)—the pre-maxilla, the maxilla, the palatine, the pterygoid.

The next point for us is, that these four separate bones, these four elements, constituting the anterior inferior arches of the cranium, differ very much from one another in one exceedingly important particular. The pre-maxilla is united with its fellow in the middle line, and it is always connected with the extremity of that cartilage which forms the septum between the nostrils—is always connected, again, with the ossification upon the under surface of the internasal cartilage which constitutes

the vomer. So that if we look at the under surface of the skull, and at the vomer along its edge, we have connected with the anterior extremity of that vomer these two maxillary bones containing the alveoli for the two incisor teeth upon each side. And this connexion I may say is a primary and original one; it is one of the most constant we have in the skull.

In the next place, the two palatine bones are connected with the base of the skull. We have here a diagram which I must explain a little carefully. It is an enlarged view of such a section of the human skull as you see here,* where the palatine plate of the palatine bone and of the maxillary bone have been cut away horizontally, for a reason I will explain by-and-by; where you see the roof of the nasal chambers with this, the vomer. Here are the two pre-maxillæ; here the cut-away portions of the maxillæ; here the basi-sphenoid; and about here would be the pre-sphenoid and the posterior part of the vomer, the vomer here forming a partition. Then there will be left in this section the upper part of the palatine bone. And you will observe that the upper part of the palatine bone is, as everybody knows, divided into two processes, the sphenoidal and the orbital. The sphenoidal process (the inner one) is here connected with the cranial axis—with the pre-sphenoidal bone and the vomer. The orbital one, on the other hand, is connected with the lateral masses of the ethmoid and with the maxilla. Thus, then, the palatine bone, like the pre maxilla, is connected with the cranial axis, and it is connected with it directly and primitively. So the third pair of bones—these internal pterygoid plates—these separate and distinct bones, are also connected with the cranial axis, for they are attached on their inner sides to the basi sphenoid.

Then we have these three pairs of bones connected with the hinder extremity of the vomer and the pre-sphenoid, the two pterygoid bones connected with the basi sphenoid, all of them diverging, as it were, from the great axis of the skull. And if we suppose this to be the axis of the skull—here enlarging in its pre-sphenoidal portion, here in its basi-sphenoidal portion, and here in its basi-occipital part, then we might put these bones diagrammatically in this fashion. (Fig. 6.) Here would

FIG. 6.

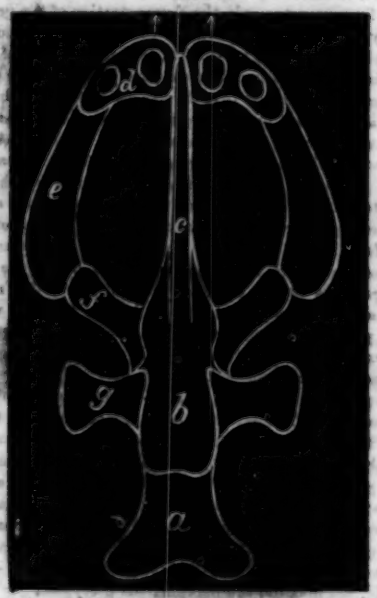



Diagram showing the middle nares. *a*, Basi-occipital. *b*, Basi-sphenoid. *c*, Vomer. *d*, Pre-maxillary. *e*, Maxillary. *f*, Palatine. *g*, Pterygoid.

be the palatine bones, (*f*,) here would be the pterygoid bones, (*g*,) and here would be the pre-maxillæ, (*d*.) Those are the primitive relations of the parts.

But the fourth bone of which I spoke—that is, the maxilla (*e*)—is totally different in its character from those in the human skull, for it has no primary connexion with the cranial axis at all. It is connected here with the pre-maxilla, and connected externally with the palatine bone; it is connected in front again with the frontal bone, at the sides with the lateral masses of the ethmoid; but no one of these is any part of the primitive cranial axis. So that this bone lies outside, and differs entirely from the other three pairs in being laid upon these, and being connected with the cranial axis by means of them, (Fig. 6, *e*.)

But you may say at once that this is not quite a correct statement of the matter, because the maxillary bones send in that inward horizontal process which separates the cavity of the nostrils from the cavity of the mouth, and you may say that these two horizontal processes unite as completely with the lower part of the vomer as do the pre-maxillary; and it is quite true that in the adult human skull they do so.

And that leads me to the next point I have to take up, which is the structure of the nostrils and of the nasal cavities in the human skull. This is a point upon which, as far as I know, the sort of information that I wish to lay before you has not been published or given anywhere; at least, I know it would have saved me a great deal of trouble if I could have found it: it is a knowledge of the exact relations of the facial bones of man to his nasal cavities and nasal passages. This is a point of first-rate importance, because the structure of the nasal passages in man and the higher mammalia is altogether exceptional; and if you attempt to compare the structures which we find in man and the higher mammalia with what you may imagine to be the corresponding structures in the lower vertebrata, you will go altogether wrong, and find yourselves quite unable to detect that precise similarity of plan which really does exist. In this skull which I hold in my hand, the pre-maxillary has been accidentally broken off. The proper form should be as it is here, (see Fig. 6,) where the pre-maxillary bone has been left and the maxilla cut away, and the lower part of the palatine and the lower parts of the pterygoids cut away. In the adult condition, as we all know, there is, as I have said, this great partition, formed partly by the inwardly extending plates of the maxilla, partly by the inwardly extending plates of the palatine; but those are structures which do not exist in the lower vertebrata at all. In man, then, we distinguish the anterior nares: they are bounded by the nasal bones above; at the sides, more or less by the pre-maxillæ and maxillæ; and below, by the pre-maxillæ; and are divided into two portions by the median septum of the vomer. In all vertebrate animals whatsoever where these bones or their representatives exist, the external nares have precisely the same position with respect to the bones: that is, the nasal bones, if they exist, above; the maxillæ more or less at the sides, and the pre-maxillæ bounding the apertures more or less in front; the two divided by the vomer. That is a perfectly constant relation through the vertebrate series in its main features. But then in man we find these posterior nostrils, (also divided in the median line by the vomer,) which are bounded below by the horizontal processes of the two palatine bones, and at the sides by the pterygoid bones. All animals which breathe air, inasmuch as their nostrils bring their lungs in connexion posteriorly with the external air, have also posterior nostrils; but if you attempt to compare the posterior nostrils of a frog or a lizard, or even of a bird, with the posterior nostrils of man, and were to imagine that you could identify the bones in a corresponding condition, you would be led altogether wrong; and for this reason—that in the lizard, or the frog, or the bird, these inward processes of the palatine bone and of the maxilla do not exist, nor is there any such forward prolongation as there is here of the maxillary bones: these are not found until we come to the higher reptiles, such as the crocodile, where they are more largely developed than in man himself. So that, in consequence of the entire absence of this partition, we must not look for the homologue of the posterior nostrils of the reptile or the bird in the posterior nostrils of man, but we must look for them in a structure which would exist if we were to cut all this away. Now the structure which does exist when we cut all these parts away is a very well defined one, and is what we must call, in man, for want of a better name (for you never hear it described), the middle nostrils. Having taken these parts away, you will see that there is still a distinct posterior passage between the pre-maxilla here, (Fig. 6, *d*,) having the maxillary bones at its sides, (*e*,) and the palatine bone behind, (*f*,) and being divided into two portions by the vomer, (*c*.) In fact, the structure of the parts is as in this diagram. (Fig. 6.) Here is the vomer, (*c*); here the pre-maxilla, (*d*); here the maxillary bone, (*e*,) which may or may not form part of it; here the principal part of the palatine bone, (*f*); and inasmuch as the palatine bone, as I

* Fig. 6 will explain the lecturer's meaning.

have stated, meets the median axis of the skull, it of course forms the posterior boundary of the middle nostril on each side, and the middle nostril is divided into two parts by the vomer. This passage in man we must call the median nares. I have had these arrows drawn to show that that is the course which the air must take in our own respiration in order to pass from the external nostrils, which are above the pre-maxilla, into the general cavity of the mouth. In man, in addition, it has to pass through a second strait, formed by the lengthening of these bones downwards and by the curling-in of them to meet in the middle line; but that is an accessory structure which we do not find in a great many lower animals, and which we could not identify there. But these relations of the parts which I have spoken of as surrounding the middle nostrils are constant throughout the vertebrate series; and we shall find that whether we take an amphibian, a bird or a crocodile, we shall always find that the air does pass through a strait or door corresponding in all the main features of its structure exactly with these median nares; that is to say, bounded in front by the pre-maxilla, behind by the palatine bones, and separated into two parts in the middle by the vomer.

I have ventured to dwell at some length upon this particular point, because unless we understand it quite clearly, the structure of the lower vertebrata becomes unintelligible.

We may now pass on to the mandible, which in the human subject is composed orginally of a single piece upon each side, and that single piece presents at its condyloid end, as we know, a convex surface, which articulates with the concave surface developed upon the under part of the squamosal bone. It is this articulation of the mandible with the squamosal which I mentioned in my first lecture as forming one of the most characteristic features of the mammalia as distinguished from other vertebrate animals. Therefore you will observe that this inferior arch is not, in a mammal, in any way directly connected with the cranio-facial axis; it is far removed from it, thrown out to the sides, and connected with the squamosal. Another is the hyoidean apparatus, connected directly with the cranio-facial axis. The hyoid bone is, as you are all aware, connected by a ligament, which extends from its lesser cornua, with the styloid process, that styloid process varying much in its length in man, and in the degree of its ossification. Originally, as we shall see, that styloid process was a long cartilage; and if, in the fœtal state, as I shall have occasion to point out to you, you strip away the tympanic bone, and follow this styloid cartilage, you will find that it eventually becomes fused with the hinder and outer part of the cartilaginous periotic capsules. So that the hyoidean arch is suspended, not directly over the basi-cranial or basi-facial axis, but is indirectly connected with it; not by a bone outside, like the squamosal, but by an integral mass, as the periotic capsule. That connexion with the hyoidean apparatus, again, as we shall see, is an extremely constant connexion throughout the vertebrate series, whereas the connexion of the mandibular arch of the skull observed in mammals is a very inconstant one.

There remain, in this brief description of the skull, only two bones to be mentioned, and I shall simply mention them now, without going into details about them. One is that little bone which more or less completely surrounds the lachrymal duct, and is placed at the sides of the face between the maxilla and the lateral mass of the ethmoid; that is the lachrymal bone. The second is one closely connected with it, also, as it were, stuck upon the outside of the skull, forming the arch of the zygoma, and connecting the maxilla with the squamosal element of the skull. This is the zygomatic or malar bone.

Turning from this bare enumeration of the parts of the skull and their most essential connexions, and of those to which I shall refer more particularly in comparing the skull of man with that of the lower vertebrata, I may now notice some other features of the skull as a whole, which are also of very great moment, and which we must bear carefully in mind in endeavouring to understand the very remarkable changes which the structure of the cranium undergoes as we pass from man down to the lower vertebrata. And, in order to define these modifications with precision, I must ask you to bear in mind a few terms which are not very difficult of recollection, which have reference to certain definite planes of the axis of the skull. Here is a vertical and longitudinal section of the skull, and if I make a sketch of it on the slate, it will be something like this, (Fig. 7.) Here would be the cranio-facial axis, here the sella turcica, (Fig. 7, *d*,) here the occipital foramen, and here the nasal apparatus; this would be the septum, (Fig. 7, *g*,) and here the pre-maxilla. That would be, at any rate, sufficient for my purpose. Now it possible to draw a straight line from the

FIG. 7.

Section of skull and brain. *a*, Cerebrum. *a*°, Posterior lobe. *b*, Cerebellum. *c*, Medulla oblongata. *d*, Pituitary body. *e*, Tentorium. *f*, Optic commissures. *g*, Olfactory nerves. *h*, Olfactory bulb. *i*, Crista galli. *k*, Plate cribrosa.

hinder extremity of the basi-sphenoid to the front extremity of the pre-sphenoid: that straight line traverses the centre of all those bones which constitute the basal axis of the cranium, apart from the face; I will therefore call that the basi-cranial axis. In this diagram on the board that line would have that posi-

FIG. 8.

Section of skull showing its axes and planes. *a*, Basi-cranial axis. *b*, Basi-facial axis. *c*, Ethmoidal plane. *d*, Tentorial plane. *e*, Occipital plane. *f*, Greatest cerebral length.

tion, (Fig. 8, *a*.) It is capable of being determined and measured with very great accuracy. Next, a line drawn from the anterior extremity of the pre-sphenoid to the point at which the internasal septum meets with the lamina perpendicularis of the ethmoid, which constitutes the axis of the face—a line drawn from this point to the attachment of that axis of the face to the pre-maxilla, gives you a second axis, which we may call the facial axis, or basi-facial axis, (Fig. 8, *b*.) And the angle enclosed between these two might be called, and conveniently enough, the cranio-facial angle. A line drawn from this point to the hinder extremity of the occipital foramen will give you, speaking generally, the plane of the occipital foramen, (Fig. 8, *c*;) and the angle of inclination which it makes with this line, the basal axis of the skull, may be termed the occipital angle. Then we all know the tentorium is attached in this position. A line drawn from the hinder part of the sella turcica—or you might draw it from the corresponding

point of the basi-cranial axis to the torcular Herophili (Fig. 8, *d*)—gives you approximately the general plane of the tentorium, and the angle of inclination which that makes with the basi-cranial axis might be called the tentorial angle. Again, if we draw a line from the connexion of the lamina perpendicularis of the ethmoid with the pre-sphenoid, and thence to the point at which that lamina perpendicularis meets with the frontal bone, we shall traverse pretty much the original plane of the cribriform plate of the ethmoid, and that might be termed the ethmoidal plane, (Fig. 8, *c*.) and the angle which it makes with the basi-cranial axis would be the ethmoidal angle. So in transverse sections of the skull. Taking the central line of our basi-cranial axis, as before, it is possible to draw lines from that basi-cranial axis to the extremities of the ali-sphenoids, to the extremities of the petrosals, and so on, and thus get a series of other planes and lines; but I will not weary you with entering into the details of these, as they will be quite obvious to any one who considers them.

Why I mention these particular planes I have spoken of is, because these are lines and planes the relations of which vary in the most remarkable manner, not only in the series of mammals and the series of lower vertebrata, but within the limits of the human species itself. You cannot examine any number of human skulls without finding every one of these angles, measured with reference to this (Fig. 8, *a*) as a relatively fixed point, (and it must be obvious to anyone acquainted with the development of the skull that this is that which is relatively the most fixed point,) that every one of these lines and angles is apt to vary within limits. For example, this plane (Fig. 8, *c*) may vary, and become more or less inclined; this plane (Fig. 8, *d*) may vary; and this (Fig. 8, *b*), again, may vary (in the skull of a negro it is commonly more open than it is in a European skull); and so the ethmoidal plane may differ. But when we come to the lower mammals, as might be expected from this variation in the range of a particular species, we shall find that every one of these undergoes the most extraordinary modifications, the general tendency being in the lower vertebrata for this line (Fig. 8, *b*) to assume a parallelism with the basi-cranial axis, and for these planes (Fig. 8, *c*, *d*, *c*) respectively to assume more or less a perpendicularity to it. So, as I shall point out more fully by-and-by, if you take the whole series of the vertebrata, from the highest to the lowest, speaking generally, the tendency of all modifications, taking this as the relatively fixed point, is to turn all these planes down upon the basi-cranial axis, and to turn all these axes downwards from that axis. The reason of this plainly lies in the prodigious development of the brain in man, that being such an enormous mass requiring so much space that the only mode in which it can acquire that relative development is by expanding upwards and backwards and forwards; and in doing this, the bones occupying their relative positions, and the only bones liable to change much being the parietal and frontal bones, the others are obliged to rotate upon their axis. There is yet one other important line of which I must speak, and that is the longest line which you can take from the inside of the frontal bone to the hindermost part or the upper part of the occipital bone above the tentorium: that line is the cerebral length, (Fig. 8, *f*.) It is, as you will observe, the maximum length of the cerebral hemisphere. And you will find, again, in running through the series of the lower vertebrata, that this line becomes shorter and shorter in proportion to the length of that (Fig. 8, *a*)—that is, in descending the vertebrate series, looking at the thing as a whole, in its broad features, you find a constant tendency in the length of the cerebral hemispheres to decrease, the length of the cranial axis being taken as a constant number.

There is yet another exceedingly important series of considerations, and that is the relations of the interior and exterior of the skull to the parts which are contained in it. I must dwell with very great care on these, because if the study of the skull is to acquire any very much greater dignity than that which attaches to putting together a child's puzzle, we must have some means or other of being able to identify with accuracy the several parts of which it is composed. The forms of every one of these bones of which I have been speaking, and the connexions of many of them, vary to a most marvellous extent in the vertebrate series, as indeed you might judge by the simplest inspection of the internal or external aspect of the skull; so that to attempt to identify—say the ex-occipital bone, or the petrosal bone, or what not, merely by its form or appearance, or general external characters in any considerable series of vertebrate animals, is simply out of the question. You must, therefore, have recourse to a series of other tests, and endeavour to find given in the contents of the skull some sort of landmarks—some sort of fixed points—which were there before the bones began to be developed; the relations of the bones to these, therefore, as the bones succeed the soft parts, being the determining elements in making out the nature of the bones themselves. Those soft parts which are developed before the bones make their appearance at all, and which may serve us most unquestionably as our fixed points, are the brain and cranial nerves, and some one or two other soft parts. It is of the highest moment to understand the relation of the bones which I have been describing,—as far as they can be said to have distinct relations,—to the different parts of the brain and to the nerves which make their way out of the skull. There have been prepared here two vertical and longitudinal sections of the human skull with the brain, which have been previously hardened, the interior of the skull remaining in its place; so that you will be able to verify, if you please, any of the statements I am about to make. Indeed, they are well known enough: there is nothing at all new about them; but it is very important that they should have the sort of prominence which is necessary for fixing them in our memories. I will endeavour to put the brain into that skull (Fig. 7), or at least to show its proper position. If I do not draw it with anatomical accuracy, it will be on purpose to allow certain parts to be more clearly shown than they could be when the brain is filling the entire cavity of the skull; but the accuracy will be perfect in the particular points on which I wish to insist. The cerebral hemispheres fill the whole of the skull; the posterior lobe comes as far as that point, (Fig. 7, $a^4$;) the anterior lobe comes along here, fitting down upon the surface of the ethmoid, (Fig. 7, *i*, *k*.) The temporal or middle lobe always takes pretty much that position, and fills up the fossa in the upper surface of the ali-sphenoid; the anterior lobe fills the cavity of the frontal bone, the middle lobe for the most part fills the parietal, and the posterior lobes correspond pretty much with the upper squama of the occipital; the descending lobe reaches the upper surface of the ali-sphenoid. Then all that space which lies between the tentorium and the lower margin of the occipital foramen—all that space which corresponds with these two fossæ—is occupied by the cerebellum, (Fig. 7, *h*.) Then, of course, here would be the medulla oblongata, (Fig. 7, *e*.)

The first point is to consider what parts of the brain are in exact relation with these anterior boundaries of the skull, those parts which we have known as the lamina perpendicularis of the ethmoid and the cribriform plates of the pre-sphenoid. I may as well put the limits of the bones in their places. The basi sphenoid will extend as far as there (Fig. 2, *b*;) then here would be the pre-sphenoid, (Fig. 2, *c*,) here the vomer, (Fig. 2, *d*,) and here the ethmoid, (Fig. 2, *e*.) The first and most important relation of the nerves to parts of the skull which we have to consider is that of the olfactory nerves. The olfactory nerves come off from this part at the base of the brain; they run forwards into a stem or peduncle, and then they expand into that long bulbous portion which lies upon each side of the crista galli and upon the cribriform plate, and from that long flattened bulb there are sent down the filaments of the olfactory nerve which supply the Schneiderian membrane, (Fig. 7, *h*, *g*:) they are separated from one another at this part by the crista galli, which extends upwards here, (Fig. 7, *i*,) so that the two olfactory bulbs are separated from one another by this partly cartilaginous and partly osseous process of bone, which is called the crista galli, and which is not unfrequently met with by another crest developed on the inner surface of the frontal, and which is, indeed, the calcification of part of the falx cerebri, (Fig. 7, *k*.) Then the peduncle of the olfactory nerves (we must distinguish it carefully from the bulb which gives off the filaments) lies here, upon the upper surface of the pre-sphenoid, and then becomes connected with the brain.

In the next place there are the optic nerves. The commissure of the optic nerves, in such a section of the brain as this, would be as nearly as possible there, (Fig. 7, *f*.) The two nerves would be given off, and would pass through the optic foramen, which lies, of course, upon each side of the pre-sphenoid; therefore you will observe that the pre-sphenoid has lying above it the peduncle of the olfactory nerves, and lying behind it the commissure of the optic nerves. Immediately behind the optic nerves there comes in the brain that very curious apparatus of unknown function, the pituitary gland, and which is lodged here, as we know, in the sella turcica, (Fig. 7, *d*.) It so happens that this structure, though one of the most insignificant in its function which can well be imagined, as we know nothing about it, is nevertheless an exceedingly constant part, and one of the most valuable of our valuable landmarks. You will perceive that it lies here behind the commissure of the optic nerves, and below them, and that it rests upon the top of the basi-

sphenoid, and the basi-sphenoid—that being the synchondrosis separating the two (Fig. 2, *b*, *c*)—forms as much of the front wall of the fossa on which it lies as of the hinder wall. This is an important point to recollect,—the position of the pituitary body, lodged in a deep pit, bounded by the basi sphenoid, because this is just one of the most constant relations in the whole of vertebrate anatomy. Then behind that, in this position, comes the occipital synchondrosis. So that the optic nerves and the olfactory bulbs between them define very clearly indeed the position of the pro-sphenoid, and the pituitary body very distinctly marks the position of the basi sphenoid.

The next important cranial landmark is the fifth nerve, and there are two branches of that nerve which have a special importance. One of them is the nasal division of the fifth, which, after entering the orbit, takes an exceedingly curious course, as you will remember—passes through the anterior of the two ethmoidal foramina, then enters the skull behind the dura mater, crosses the cribriform plate or close round its margin, then enters the cavity of the nose, so that it perforates the lateral mass of the ethmoid. This happens to be an exceedingly constant and regular vertebrate relation, and we shall find it of very great service in identifying a particular bone which is commonly supposed not to exist or to be definitely developed in the human skull. The other great and important landmark is furnished by the third division of the fifth, (Fig. 5, 5.) This passes through the foramen ovale here in the base, in the ali-sphenoid, and you will perceive that it passes close to the hinder margin of the ali-sphenoid, and in front of the periotic capsule. It always passes—at least so far as we are concerned in the human subject now, but the relation is constant—behind the greater part of the ali sphenoid, and it passes in front of the periotic capsule. That is an exceedingly important mark in the human skull. The seventh, again, affords us some important diagnostic features. I speak now of the portio dura. That in the human skull enters the internal auditory foramen, then goes through its own canal in the mass of the petrosum, and passes out by the stylo-mastoid foramen. You will observe that in its course the portio dura traverses the petrosal (I speak now of the petrosal in a limited sense, apart from the petrosal in the human sense of the word), and traverses it in front of the labyrinth, then makes its way outside the organ of hearing, being distributed at length to various parts with which you are familiar, amongst others to the levators of the hyoidean apparatus. Then we come to the eighth pair. These in the human subject traverse the great foramina lacera posteriora, and make their way out in three divisions. The two main divisions of the eighth pass out here behind the periotic capsule, and they pass out in front of the ex occipitals, this hole having exactly that position, being between the ex-occipitals and the capsule of the organ of hearing. That again is a constant relation, one of great importance to understand thoroughly, as we shall find it reappear again and again in the vertebrate series.

There are some other relations, which are not, perhaps, of so much importance, but which I will mention briefly. In the first place, there is the position of the corpora quadrigemina, which are placed here at the point where the cerebellum becomes connected with the anterior ganglia of the cerebrum; and, inasmuch as they have this position, they lie in front of the tentorium, therefore lie upon the whole towards the front part of the periotic capsule, because the tentorium is connected at its sides with the edges of the petrosal bone; and therefore if you send a needle through the corpora quadrigemina, you will come pretty much upon the front margin, or towards the front margin of the petrosal bone. This, although it is a distinct relation in the human subject, is one that we shall find tolerably constant among the lower vertebrata.

Then there is the position of the internal carotids, in man winding their way through the canal in the petrosal bone, and then coming up here between the petrosal bone and the sides of the sphenoid bone until they take the course with which we are all acquainted. But there is a peculiar process of the sides of the sphenoid bone, well developed in this particular skull, which is separately ossified—that little tongue-like process which here lies upon the outer side of the carotid canal, and in the adult state quite inseparably connected with the general mass of the body of the basi-sphenoid. This is rarely mentioned in English works on anatomy; but is known among foreign anatomists as the lingula sphenoidalis, and the relation of this to the internal carotid is a matter of some moment, as we shall see by-and-by, in considering what becomes of that element in the lower vertebrata, or at any rate what probably becomes of it.

Then we have upon the under surface of the skull those curious canals by means of which the tympanum is placed in communication with the cavity of the throat—the Eustachian canals, and a word or two must be said about their position. They, in man, coming through a passage which is formed partly by the upper portion of the petrosal bone, and partly by the tympanic bone, make their way out here upon the base of the skull, and then become connected with these great alæ of the sphenoid; and it will be observed that if the ossification of these lateral parts of the basi sphenoid were to become very extensive, they would gradually extend over and coat these Eustachian tubes, so that you might have the Eustachian tubes completely enclosed in the same mass with the basi sphenoid, and opening upon its sides. This relation of the Eustachian tubes to the petrosal which we find in man may be regarded as an accidental one; but their position in close relation with the sides of the basi-sphenoid is an extremely constant one.

The last point which may be of importance in considering the modifications of the skull in the rest of the vertebrate series, is the structure of the tympanum and the position of the contained bones, upon which I may offer a few more words than I had time to say the other day. If we consider the different elements that enter into the structure of the tympanum, be-

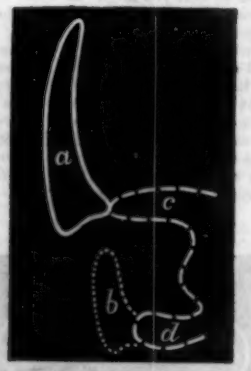
FIG. 2.

*a*, Squamosal. *b b*, Tympanic. *c*, Proötic part of periotic capsule. *d*, Epi-otic or mastoid. *e*, Membrana tympani in front of epithotic region.

ginning with the exterior—with this as the squamosal element (Fig. 9, *a*)—and if we examine them in the young skull, where the bones are quite distinct, we shall find this to be quite separate, giving this articular fossa to the lower jaw, then curving inwards and downwards in that fashion over the upper part of the auditory meatus, so that the roof of the auditory meatus at this point is formed by the squamosal bone itself. Then internal to, and behind that, you have the mass of the mastoid, (Fig. 9, *d*,) and here internally would be the great mass of the petrosal, (Fig. 9, *c*.) Beyond the point at which the squamosal bone forms the roof of the external auditory meatus, the petrosal bone forms it; but if you make a section of the petrosal bone right through its substance transversely, so as to get the roof of the tympanic cavity, you will find that that cavity has this sort of appearance. Here would be the projection, or promontory, (Fig. 10.) Above and below are two lips; this one, which foreign anatomists call the tegmen tympani, (Fig. 10, *c*, *d*,) and this which gives attachment to the lower part of the ring of the tympanic bone, (Fig. 10, *b*.) So that the tympanic cavity becomes exceedingly complex, partly roofed in by the squamosal, partly roofed in and floored in above and below by the petrosal; and the outer part, being more or less completed by that bone which we call simply the external auditory meatus in the human subject—but it is originally a perfectly distinct bone—fits in here, (Figs. 9 & 10, *b*) and becomes attached to the lower part of this floor furnished by the petrosal. This tympanic bone, which forms a long sheath, is throughout its length an open canal; it does not form a ring, as is often erroneously stated, but is an open canal, the upper part of it being traversed by a groove which is wider in some places and narrower in others. At this point it forms the lower part of the auditory meatus; at this point internally it forms the lower part of the Eustachian tube, as I was saying just now. The importance of this is to have a clear understanding of the share which this tympanic element has in regard to the other bones forming the temporal in the frame of the tympanic membrane. With regard to the bones in the lower vertebrata, persons have endeavoured to identify them with this bone, on the ground that this is the bone which frames, *par excellence*, the tympanic mem-

brane in the human subject; and, therefore, the bone which frames them in the lower must be the same. But the upper part is connected with the squamosal element, and only the lower part with the tympanic; so that in the human subject and in the mammalia generally, it does not furnish a distinct frame for the tympanic membrane, but only enters to a certain extent, in part, into that complex frame.

FIG. 10.




Section of temporal bone showing the construction of tympanic cavity. *a*, Squamosal. *b*, Tympanic. *c*, Upper lip of periotic capsule or tegmen tympani; *d*, Lower lip: between them is the promontory.

With these considerations, what I have to say respecting the structure of the adult human skull will be completed at our next meeting, when I propose to take up the development of the human skull, and to show you what data we can obtain in the study of the development of the several parts which enter into its ossification, for our comparison with the lower vertebrata.

[The woodcuts on a black-ground illustrating these lectures are expressly copied for THE LANCET reports from the extemporaneous drawings by the lecturer on the slate, which are made and effaced in succession as the lecturer proceeds.]

# A Course of Lectures

ON CERTAIN DISORDERS OF

# THE BRAIN & NERVOUS SYSTEM,

*Delivered at the Royal College of Physicians,*

BY CHARLES BLAND RADCLIFFE, M.D.

FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, PHYSICIAN TO WESTMINSTER HOSPITAL, ETC.

## LECTURE IV.—PART I.

### III. ON THE PART WHICH CERTAIN NON-ELECTRICAL AGENTS HAVE TO PLAY IN THE PROCESS OF MUSCULAR MOTION.

#### (1) ON THE PART WHICH THE BLOOD HAS TO PLAY IN THE PROCESS OF MUSCULAR MOTION.

31. *The state of rigor mortis is coincident with stagnation and coagulation of the blood.*

Whatever be the explanation of the fact, of the fact itself there can be no doubt.

32. *After the state of rigor mortis is fully established, the state of vital relaxation may be brought back by renewing the movements of the blood within the muscle.*

This very important fact is fully established by the recent investigations of Dr. Brown-Séquard and Prof. Stannius of Rostock. Having waited until the state of rigor mortis had become fully established in the arm of a guillotined criminal, Dr. Brown-Séquard injected defibrinated dog's blood into the brachial artery, and found that the rigidity passed off very speedily, and that the muscles were kept in a state of true vital relaxation so long as the injection was continued. Having placed a ligature on the abdominal aorta of a puppy, and waited until the hinder parts of the animal had passed into a state of rigidity—which by other experiments was proved to be identical with rigor mortis,—Prof. Stannius untied the ligature, and found that the return of the stream of blood to the vessels of the rigid muscles soon brought with it the state of relaxation which is characteristic of living muscle. Other experiments to the same effect are furnished by these two distinguished physiologists; but these are sufficient to show that after the state of rigor mortis is fully established, the state of vital relaxation may be brought back by renewing the supply of blood to the vessels of the muscles.

33. *It is difficult to account for the phenomenon of rigor mortis by supposing that the blood plays the part of a stimulus to a vital property of tonicity in muscle.*

Judging from the two facts which have been mentioned in the last two paragraphs, the blood would seem to counteract the state of rigor mortis rather than to produce it; and, so far as I know, there are no facts which render it necessary to reverse this judgment.

34. *It is less difficult to explain the history of rigor mortis by supposing that the blood may help to counteract this form of contraction by ministering to the maintenance of the natural electricity of the muscle.*

It is a fact that the natural electricity of the muscle is present in greater or less amount so long as the muscle remains in the state of vital relaxation; it is a fact that this electricity has disappeared before the occurrence of rigor mortis; it is also a fact that electrical and chemical changes are intimately connected; and therefore it is easy to believe that the chemistry of the blood may minister to the maintenance of the natural electricity of the muscle, and help to counteract the state of rigor mortis so long as it continues to do so.

35. *The state of relaxation in living muscle is disturbed by convulsive contraction when the supply of arterial blood is suddenly arrested by hæmorrhage.*

This fact is verified every day at the shambles, and in many other ways which are familiar to the physiologist and physician.

36. *The state of relaxation in living muscle is disturbed by convulsive contraction when the supply of arterial blood is suddenly arrested by suffocation.*

Here, also, the evidence is abundantly sufficient, and the fact is not to be called in question.

37. *There is reason to believe that one way in which strychnia and brucia bring about convulsive muscular contraction is by producing a change in the circulation which is equivalent to loss of arterial blood.*

Dr. Harley has shown very plainly that air which has been allowed to remain for some hours in contact with blood containing a little strychnia and brucia, contains more oxygen and less carbonic acid than air which has been left in contact with the same quantity of simple blood for the same length of time. He has shown, that is to say, that the poisoned blood *respires* less freely than the pure blood; for the blood which respires less freely will take less oxygen from, and give less carbonic acid to, the air which provokes the respiratory changes. The results of one of these experiments are given in the following table; the inferences are obvious:—

| — | Composition of common air. | Composition of air *after* having been in contact with *simple blood* for twenty-four hours. | Composition of air *after* having been in contact with *blood containing strychnine* for twenty-four hours. |
|---|---|---|---|
| Oxygen ... ... | 20·96 | 11·33 | 17·82 |
| Carbonic acid ... | ·002 | 5·96 | 2·73 |
| Nitrogen ... ... | 79·038 | 82·71 | 79·45 |
| | 100·000 | 100·00 | 100·00 |

38. *It is difficult to believe that blood produces the state of convulsive contraction by playing the part of a stimulus to a vital property of irritability in muscle or nerve.*

Dr. Brown-Séquard is or was of opinion that the office of arterial blood is to minister to the nutrition of muscle and other tissues, and to the storing-up of contractile and other forms of power; and that the office of venous blood is to supply

a stimulus by which the power derived from the red blood is called into action. And at first sight there are certain facts which seem to support this opinion. There are several facts, for example, which show that convulsive contractions are produced when black blood is supplied to the muscles; and there are other facts which show that the contractions which are caused in this manner may be at once put a stop to by supplying red blood instead of black. But it is not less true that convulsive contractions are produced when no blood is supplied to the muscles, as well as when venous blood is supplied in place of arterial; and thus the truth may be, not that venous blood has the power of stimulating contraction which Dr. Brown-Séquard ascribes to it, but that venous blood has *not* the power of counteracting muscular contraction which seems to belong to arterial blood—that, in fact, the presence of venous blood in relation to muscular action is equivalent to the absence of arterial blood, and no more. This is what may be; this, in all probability, is what must be: for it is surely more easy, as well as more philosophical, to accept the explanation which applies equally to both cases—to the case in which contractions are produced when no blood is supplied to the muscles, and to the case in which this result is brought about by supplying black blood in place of red. In a word, all the facts, fairly interpreted, would seem to lead to the conclusion that arterial blood favours muscular relaxation by its presence, and muscular contraction by its absence.

39. *It is not difficult to believe that blood may play its part in the process of muscular motion through the instrumentality of the natural electricity of the muscular and nervous systems, intensifying this natural electricity during the state of vital relaxation, failing to do so when muscular contraction is present.*

How the blood plays its part in the prevention or production of convulsive muscular contraction cannot be fully seen until some definite information is gained respecting the operation of "nervous influence" in the same process. At the same time, it is possible, even now, to see that arterial blood may intensify, and that venous blood may fail to intensify, the natural electricity of the muscular and nervous systems; for it is to be supposed that the electricity produced by the blood will be in direct relation to the chemical reactions between arterial blood and the tissues. And it is possible to see this also—that the failure of natural electricity which may be supposed to take place when arterial is transformed into venous blood, does not involve permanent muscular contraction; for it is a fact that muscular fibres which have been completely removed from the influence of the circulation retain for some time sufficient natural electricity to keep them in a state of relaxation, provided they are left to themselves.

### (2) ON THE PART WHICH "NERVOUS INFLUENCE" HAS TO PLAY IN THE PROCESS OF MUSCULAR MOTION.

40. *There is reason to believe that rigor mortis is coincident with a state of things in which "nervous influence" is altogether wanting.*

If, as must needs be, the amount of nervous influence generated is in direct relation to the supply of arterial blood to the nervous system, it is to be supposed that the conclusions which were drawn with respect to the *modus operandi* of blood in rigor mortis (¶¶ 33 & 34), must also apply to the *modus operandi* of "nervous influence" in rigor mortis.

41. *There is reason to believe that the state of relaxation is not disturbed by convulsive contraction so long as the muscles receive a due supply of "nervous influence," and that this state is disturbed in this manner at the moment when this supply is interrupted.*

When ligatures are placed upon the great vessels which carry blood to the nervous centres of the head and neck of a rabbit, the animal is immediately thrown into a state of general convulsion; when these ligatures are untied, and the blood once more admitted to the vessels from which it had been excluded, the convulsion immediately comes to an end, if it have not already done so, and if it have done so, it is not renewed. When, that is to say, the great nervous centres of the head and neck receive a due supply of blood, and when, consequently, they must distribute a due supply of "nervous influence" to the muscles, the state of muscular relaxation is not disturbed by contraction; when, on the other hand, the supply of blood to these great nervous centres is interrupted by the ligatures, and when, as a consequence of this interruption, the supply of "nervous influence" from these centres to the muscles must experience a similar interruption, the state of muscular relaxation is immediately disturbed by contraction. This experiment, which is an improvement upon an old experiment by Sir Astley Cooper, is by MM. Kussmaul and Tenner.

42. *There is reason to believe that the state of muscular relaxation is not disturbed by contraction in cases where it may be supposed that the muscles receive an increased supply of "nervous influence."*

When ligatures are placed upon the great vessels so as to exclude the blood from all parts of the body except the head and neck, the immediate result is paralysis of all the parts which are deprived of blood, and paralysis only; when pressure is afterwards applied to the open vessels, so as to cut off the supply of blood from the head and neck, the whole animal, the paralysed part as well as the non-paralysed, is immediately thrown into a state of convulsion. When, that is to say, the ligatures are tied so as to divert the whole mass of blood towards the great nervous centres of the head and neck, and when, consequently, the "increased determination of blood" to these centres may be supposed to involve a corresponding increase in the amount of "nervous influence" distributed to the muscles, there is paralysis, but not convulsion: when, on the other hand, pressure is applied to the open vessels, so as to interrupt the supply of blood to the cranio-cervical nervous centres, and when, consequently, the want of blood must involve a corresponding failure in the supply of "nervous influence" doled out from those centres to the muscles, the animal is immediately thrown into a state of convulsion. This important experiment, also, is supplied by MM. Kussmaul and Tenner.

43. *There is reason to believe that the state of muscular relaxation is more readily disturbed by contraction, and that the contraction itself is more powerful, when the muscles are receiving a diminished supply of "nervous influence."*

It is found that the reflex contractions which may be produced in the hind leg of a frog by pinching the toes are capable of raising a heavier weight *after* the leg is liberated from the control of the brain and medulla oblongata by dividing the spinal cord low down in the cervical region. In the case of two frogs, A and B—the experiment is by Dr. Brown-Séquard,—the actual results were as follows, the weights raised at different times being expressed in grammes:—

| Frogs experimented upon ... ... ... ... ... | A. | B. |
|---|---|---|
| Weights raised *before* the division of the cord ... | 60 | 60 |
| Weights raised *after* the division of the spinal cord ... ... Immediately afterwards... | 20 | 10 |
| In five minutes ... ... | 45 | 30 |
| In fifteen minutes ... ... | 60 | 40 |
| In twenty-five minutes ... | 80 | 60 |
| In one hour ... ... ... | 130 | 100 |
| In two hours ... ... ... | 140 | 120 |
| In four hours ... ... ... | 140 | 130 |
| In twenty-four hours ... | 150 | 140 |
| In forty-eight hours ... | 150 | 140 |

It is found, also, that the leg of a frog which has been liberated from the control of the spinal cord, by dividing its sciatic nerve, is more prone to enter into and to remain in the state of contraction than the companion leg upon which this operation has not been practised. Indeed very many experiments might be mentioned, all of which would seem to show more or less clearly that the disposition to convulsive muscular contraction is inversely related to the supply of "nervous influence" to the muscles.

44. *It is difficult to believe that "nervous influence" produces the state of convulsive contraction by playing the part of a stimulus to a vital property of irritability in muscle or nerve.*

Arguing from the evidence adduced in the preceding paragraphs, this difficulty would seem to be insuperable; and, so far as I know, the evidence adduced is in no sense one-sided.

45. *There is reason to believe that the part which is played by "nervous influence" in the process of muscular motion is similar to that which is played by the natural electricity of the nervous system in the same process, and that the former agent may act through the instrumentality of the latter.*

The facts which have been cited would seem to show that "nervous influence" favours muscular relaxation by its presence, and muscular contraction by its absence. The facts, that is to say, would seem to show that "nervous influence" and nervous electricity have a common action in the process of muscular motion. The supposition that "nervous influence" may play its part in the process of muscular motion through the natural electricity of the nervous system is one, therefore, which does no violence to the facts. On the contrary, it harmonizes with the facts which have been mentioned, and also with this—that the natural electricity in question must form a part—perhaps a

considerable, certainly the most intelligible, part—of what is included under the vague name of "nervous influence." Nor must it be forgotten, in estimating its value, that this supposition simplifies matters by providing an explanation which is not altogether unintelligible, and which applies equally to the *modus operandi* of "nervous influence" and nervous electricity in the process of muscular motion.

46. *There is even reason to believe that the will avails itself of the aid of the natural electricity of the nervous system in playing the part it has to play in the process of muscular motion.*

Natural electricity becomes latent in every act of voluntary muscular contraction. Of this fact M. DuBois-Reymond has supplied the proof. Moreover, it is not difficult to obtain "induced contractions" (¶¶ 12 & 13) from contractions which are produced voluntarily in frogs. Of this fact I have often had experience. In a word, there are the same electrical disturbances in voluntary muscular contraction as in any other form of contraction; and, therefore, after what has been said, there is reason enough to believe that the will may avail itself of the aid of the natural electricity of the nervous system in playing the part it has to play in the process of muscular motion. How the will avails itself of this aid is a problem with which I have nothing to do.

(3) ON THE PART WHICH CERTAIN COMPARATIVELY UNIMPORTANT NON-ELECTRICAL AGENTS HAVE TO PLAY IN THE PROCESS OF MUSCULAR MOTION.

47. *When a muscle or motor nerve is thrown into a state of action by mechanical or chemical causes, or by heat, or cold, or light, there is reason to believe that this result is brought about through the instrumentality of the natural electricity of the muscle or nerve; for it is a fact that the state of action thus produced is marked by disappearance of natural electricity, and by the contemporaneous development of instantaneous electrical currents of high tension.*

There is no doubt as to the reality of the fact, and therefore there is no want of a firm standing point for the inference. There is no great difficulty, moreover, in accounting for the fact. For what is the case when a muscle is thrown into a state of action by mechanical causes, such as pinching, pricking, cutting, or tearing? In the first place, it is plain that the mechanical injury may diminish the electricity of the muscle by deranging, or destroying, or removing a number of electromotive muscular molecules; for, as the electricity of the muscle is the sum of the joint action of these molecules, it follows that this electricity will be diminished by any cause which lessens the number of these molecules. It is plain, also, that the body causing the mechanical injury may *discharge* some of the natural electricity of the muscle, if only it be a conductor, and if the rest of the circuit be complete. Moreover, it is to be supposed that any diminution in the natural electricity of the muscle will be attended by the development in and near the muscular fibres of instantaneous electrical currents of high tension, analogous to the discharge of the torpedo, and that these instantaneous currents will bring about contraction in the muscular fibres which come within their range of action by suspending for a moment the natural electricity of the fibres (¶¶ 12 to 17). In a word, the mechanical injury to the muscle must give rise to electrical changes which, according to the premises, may result in muscular contraction. Nor is the case different when the seat of the mechanical injury is the motor nerve instead of the muscle, for the natural electricity of muscle and nerve is in all respects ruled by the same law. Nay, even in the case where reflex muscular action is produced by a mechanical cause, the only difference must be that the seat of action is removed a step further back from the muscle—that is, from the efferent to the afferent portion of the reflex nervous arc. In the case where a chemical cause has to do with muscular contraction, it is easy to perceive that the action may not be different from that of a mechanical cause. In the case where the contraction is owing to the action of light, or heat, or cold, it is not improbable, judging from evidence to be adduced hereafter, that an "impression" on an afferent nerve is attended by an equivalent expenditure, not only of "nervous influence," but also of the natural electricity belonging to the nerve. It is not improbable, that is to say, that the light, or heat, or cold may initiate the change which has been seen to lead to contraction when it is transmitted from the afferent to the efferent part of the reflex nervous arc; for, according to all the premises, the natural electricity of the nerve cannot be diminished from any cause without the development of those instantaneous electrical currents of high tension which appear to be the agents in producing contraction. But be the explanation what it may, the fact is certain, that muscle is not thrown into a state of contraction by the agents in question without the production of electrical changes which furnish ground for believing that these agents bring about the contraction through the instrumentality of the natural electricity which belongs to the muscular and nervous systems.

---

# AN ACCOUNT OF A SERIES OF THREE PLASTIC OPERATIONS SUCCESSFULLY PERFORMED IN A CASE OF DEFORMITY OF THE NECK FROM A BURN;

## WITH SOME OBSERVATIONS ON THE OPERATIVE TREATMENT OF SIMILAR CASES.

BY T. HOLMES, ESQ., M.A. CANTAB.,

SURGEON TO THE HOSPITAL FOR SICK CHILDREN; ASSISTANT-SURGEON TO ST. GEORGE'S HOSPITAL.

THE treatment of extensive contraction following on burn is confessedly difficult, and commonly ends in disappointment. My own experience of such cases hitherto has been unfavourable. I have seen many dismissed without treatment; several submitted to treatment of various kinds, without much permanent benefit; few in which I have been able to convince myself that the patient has really been restored to anything approaching the functions and appearance of health. In those contractions which occur in the neck the difficulty of treatment is greater than in any other part of the body; and when the lip is much everted, and deformity is commencing in the lower jaw and in the upper part of the face, it is generally found insurmountable. The reason is obvious. The cure of deformities from cicatrization involves two requisites—a tissue which shall be extensible, and points of extension and counter-extension from which the force can be made to act. Both requisites are absent in these contractions of the neck and face. The tissue of the cicatrix resists all the force that can be applied to it: a weak traction produces no effect; a stronger force causes the scar to ulcerate. No extension can act except by pressing upwards the lower lip; and as long as this continues everted, and the parts around remain lubricated by the constant dribbling of saliva, it is hopeless to endeavour to fix an instrument so securely as to make any effectual pressure. The object of plastic surgery in these cases must be to replace the cicatrix, or at least the more indurated portions of it, by more extensible material, and so to restore the lower lip to position as to remedy the dribbling of saliva, and afford a firm and dry surface, from which effectual pressure may be made. By effectual pressure is not meant violent pressure; but in order that a force may be gently and gradually applied it must have a firm basis; if otherwise, there will always be a temptation to compensate for unsteadiness in the base by severity in the superincumbent pressure.

Before proceeding further on the subject of contracted cicatrices in the neck, I may observe that I fully recognise the great advantage of treating such cicatrices, in every part of the body, by gradual extension, when possible. But it is only possible to apply mechanical pressure with the due effect when surfaces for extension and counter-extension exist. This fact is too often overlooked by instrument-makers and surgeons. The object of mechanical extension—viz., to unfold the tissue of the cicatrix—can only be effectually secured by placing the latter between two forces. If, for instance, in a contraction of the neck the force be applied to the chin merely, it tends to draw the scar higher up the neck rather than to stretch it. It is true that the resistance of the skin and the action of the lower parts of the body do produce a kind of counter extension, but a very imperfect one. The instrument ought to be so contrived as to press also below the cicatrix, and prevent the raising of the skin of the chest. But when such firm surfaces for extension and counter-extension exist, manual force may often be advantageously substituted for machinery. Managed by intelligent and patient attendants, manual extension produces no pain, no inconvenient confinement, no risk of ulceration and consequent suspension of treatment. I succeeded a short time since in restoring motion to an elbow-joint, fixed by the contraction of a burn, by means of

passive motion, after instruments had been long tried in vain; or rather I should perhaps say that, by means of a few simple instructions, I succeeded in persuading a very attentive and intelligent nurse to undertake the cure of the contraction. But this plan is, I believe, only applicable to the milder forms of contraction. In the more obstinate, the length of time which it requires, and the invisible progress it entails, will be sure to weary out the patience both of the patient and the attendants. So that whether success be or be not theoretically attainable, it is sure in practice not to be attained. In these cases mechanical extension must be used; but this plan also requires great attention and unwearied patience. The time required to stretch a tough and large cicatrix is to be measured, not by weeks, but by months, sometimes even by years; so that it is little matter for wonder if the treatment of such cases often turns out abortive.

Excluding cases where extension is indicated, let us consider what to do in those contractions where no surface exists to which it can be applied, for an example of which I will take such a case as that of which I am about to give some particulars: a little child, in whom the chin has so little prominence, the lower lip is so much everted, and the parts around so slippery with saliva, that no instrument can be made to hold upon it. Recurring to what I said above, two things are essential—to provide a more extensible material, and a firmer base for pressure. The almost innumerable plans adopted by plastic surgeons for the remedy of these deformities show how difficult that remedy has been found to be. I shall review very rapidly a few of the best tried plans, and endeavour to show to what kind of cases each is applicable.

1. The most obvious plan, and the one which therefore has perhaps been most often tried, is to divide the contracted bands of the cicatrix, fix the head by a machine, and allow the raw surface to fill up in the proper position. Gradual extension is to be made, by means of the machine, as soon as seems prudent. The radical objection to this plan is, that it involves the cicatrization of a surface nearly as large and nearly as unhealthy as that of the original burn—a process which must be very tedious, and where the scar will be disposed to contract for a long while after its surface is healed; so that little or no good is usually obtained in this way. It may be the only measure practicable where the cicatrix involves almost the whole neck and extends deeply; but its success is so improbable that it should not be attempted without due consideration. It is far from being devoid of danger.

2. The division of the sound structures around the cicatrix by various incisions, which are made to gape by traction applied to remedy the position of the head and chin, and then allowed to fill up by cicatrization, is an operation which appears to me hardly worth a repetition. To fill up the gap so left by sound skin borrowed from the neighbourhood must be always possible, and is far preferable to a proceeding which proposes to cure the results of cicatrization by an operation involving a more extended cicatrization.

3. The plan adopted by Mr. James,* of Exeter, consists in dissecting up the cicatrix from the sounder skin below it, drawing it upwards with the head, so as to tuck it in below the chin, where it is kept by the pressure of a collar attached to some form of instrument which raises the head. The gap made by drawing up the cicatrix is left to granulate. The same objection applies to this as to the former scheme,—namely, that it would be far better to fill the gap by a plastic operation; but Mr. James reports some cases in which real good seems to have been done. The operation would be applicable chiefly to very prominent and tense scars, limited in extent, yet too large for entire removal.

The operation recently described by Mr. Butcher† is a modification of this proceeding of Mr. James. The modification—a very useful one—introduced by Mr. Butcher consists in the subcutaneous section of those bands connected with the cicatrix which exist beyond the part dissected up. Mr. Butcher's plan is therefore applicable to the same class of deformity as Mr. James's, but, like it, requires for its perfection that the gap below the cicatrix be filled by transplantation.

4. Earle's plan‡ consisted in removing or dissecting away the cicatrix, and allowing the gap to fill up by granulations, care being taken to maintain a proper position during the healing. I can hardly imagine, and never saw, a case of neck-contraction to which this plan would apply; since, if the cicatrix were large, the operation would be useless, and would very likely prove fatal; while, if it were small, the gap (should it be thought proper to dissect out the cicatrix) ought to be filled with skin from the back or chest.

5. This latter plan is the one so successfully employed by Mr. Teale;* not that Mr. Teale claims any novelty or originality in its invention. In fact, it must be about as old as plastic surgery itself, and had been successfully practised by Carden, of Worcester, and Mutter, of Philadelphia (as Mr. Teale observes at pages 9 and 10 of his work). It is far more generally useful than any other form of operation, and can, in fact, be adopted in almost all kinds of burn contractions, though of course with far different prospects of success. It is not necessary to dissect out the whole cicatrix and attach the transplanted flap to sound skin round its entire edge, though in the few cases in which this can be done our hopes of complete success will be far more sanguine; but the surgeon must remember that the flap will not unite by first intention in any part where it is attached to cicatricial tissue, and that therefore great care must be used to prepare for it a healthy bed of cellular tissue in the floor of the wound, in order that its deep surface may form adhesions enough to retain it in place. If the flap can be so taken as to leave no bridge for after division, it is far better. The front of the chest is almost the only part from which the new skin can be borrowed in this manner. All the subcutaneous fat &c. down to the pectoral muscles should be raised with the flap, which should be cut of ample size to fill the gap, and should be secured to all the edges of the wound by a multitude of silver sutures.† The gap on the chest should be drawn together as much as possible by the hare-lip suture, numerous pins being used. No hurry should be made over the operation, and no bleeding vessel should on any account be left. Hæmorrhage beneath the flap would separate parts which ought to adhere, and would form an inevitable source of future suppuration. When all is nicely adjusted, the ends of the hare-lip pins should be covered with some soft substance, the wound is carefully coated with oiled lint to prevent the dressings from sticking to them, and the whole covered with a thick layer of cotton-wool. If the transplanted flap is heavy, it may require the support of a piece of strapping; but this, or any other agent of compression, should be avoided unless seen to be absolutely necessary. Nothing should be done to the wound for some days (three to five), unless the occurrence of unfavourable symptoms compels an examination. At the end of the above period, the edges should be examined, any sutures which are cutting through should be removed, and support be afforded by small pieces of strapping. The hare lip pins and sutures should be entirely removed, and the gap on the chest, which ought to be greatly narrowed, dressed lightly. The adhesion by first intention of the distal edge of the flap—i. e., the edge nearest to the lip—is of the highest importance. If this edge should slough, or even should separate widely from the parts to which it has been sown, little improvement will result from the operation; for a band of cicatrix will form near the lip, the contraction of which will be very difficult to avoid, and will, if not prevented, evert the lip afresh, and give rise to renewed sialorrhœa, and a state of things little differing from the original deformity.

When this operation has been successfully completed, the cure is not thereby achieved, for mechanical extension must now come into play. The head remains still drawn down towards the chest, although less so than before the removal of the rigid bands of cicatrix, and the prominence of the chin is still more or less obliterated; but now a firm *point d'appui* has been obtained from which pressure can be made, and a material has been transplanted into the neck which will allow of the stretching and moulding by which both these deformities may be lessened or entirely eradicated. However, if no other good were done, the cure of so disgusting a deformity as is produced by the traction of a cicatrix on the lower lip—a deformity which may increase during an unknown length of time to any point of hideousness—is an advantage which justifies almost any risk. It is not to be denied that these operations involve much risk. I have seen death occur twice in plastic proceedings about the upper extremity—a situation far less dangerous than the neck. In the latter region it is often necessary to go very deeply in dividing the contracted bands. Thus in the last operation of the three performed on the child whose

* Medico-Chirurgical Transactions, vol. xiii.
† Dublin Quarterly Journal, Feb. 1st, 1862.
‡ Med.-Chir. Trans., vols. v., vii.

* Teale on Plastic Operations. Lond., 1857.
† Mr Teale recommends us to support the flap only at a few points, in order to avoid great tension. This may be necessary where the flap is not quite large enough, but it should be avoided if possible, for every reason. Every slight point of adhesion in every part of the edge is of the greatest importance, and thorough support at every part of the circumference during the first few hours after the operation while the adhesions are forming is hardly less necessary.

case I am about to relate, the dissection was conducted so deeply at the root of the neck that the projection of the pleura above the clavicle, under the "dome-shaped" expansion of the cervical fascia, was seen with each breathing. Such deep dissection, besides its momentary danger from wounding important parts, is very liable to give rise to diffuse suppuration, which, when it extends into the mediastinum, usually proves fatal. To limit as far as possible the immediate danger, it is advisable to use cutting instruments as little as possible. The projecting bands should be snipped with round-pointed scissors, and will then readily yield to the fingers. The danger of diffuse suppuration is best avoided by operating only on healthy subjects.

The case which has given rise to these observations is interesting on account of the great length of time over which the treatment extends, and the number of operations required for the cure of the malposition of the lip.

CASE.—Henry T——, aged three, was brought originally on May 9th, 1860, as an out-patient to the Children's Hospital, on account of a burn which had occurred several months before, and had been treated at another institution. At the time of his first application the burnt surface had nearly healed, leaving great deformity of the neck and face and of the right arm. Nothing will be said here as to the latter, which, in fact, has not hitherto been subjected to any efficient treatment. The scar on the neck was transverse, and was not in itself of any great breadth, so that a fair interval of uninjured skin existed between it and the clavicles. This interval, however, was extremely puckered and seamed by bands, which resulted from the contraction of the scar, whereby the skin of the chest had been pulled upwards. The scar lay much nearer the lip, and bands similar to those below it ran upwards, everting the lip, causing constant sialorrhœa, and producing a hideous expression of face.

I attempted the cure of this deformity at first by instruments; but although I had frequent and careful consultations with some of the best instrument-makers in London, and made patient trial of the machines which they constructed, yet I could make no impression upon the contraction. The reason was quite obvious—viz., that any instrument, of whatever breadth, and however moved or jointed, being necessarily fixed upon the lower lip, got immediately displaced in consequence of the restlessness of the child, the small surface for pressure, and its constant lubrication by saliva. Convinced at last that I could not hope for efficient instrumental extension unless I could obtain a sufficiently large and sufficiently dry surface above for the pressure to rest on, I determined to endeavour to raise the cicatrix further upwards, liberate it from the parts below, and provide a healthy and extensible material by dividing all the bands passing to the chest by a free transverse incision below the scar, dragging the upper lip with the cicatrix upwards, and filling the gap which would result from this by a flap taken from the integument of the chest.* This was done on October 22nd, 1861. The incision through the bands of skin (which, of course, partook somewhat of the character of cicatrix) was carefully deepened till healthy cellular tissue was reached. Traction on the lip now produced a large oblong gap, which was filled up by a flap, cut from the right side of the chest, and so inclined as to allow of its being fitted into the wound without much twisting. The flap was of ample size to fill the gap; two large arteries were divided in dissecting it up from the deep parts; an abundance of fat was raised with it. It was united by a large number of points of silver suture. The whole was covered with oiled lint, and wrapped up in cotton-wool; a bandage was applied to prevent the child moving his right arm, and the parts left at rest for three days, when a large part of the edges was found united by first intention; but the upper edge, which had more of the cicatricial character, and the distal or left angle, united by granulation. The wound left by raising the flap was narrowed by means of the hare-lip suture, and healed kindly. Much benefit to the appearance of the face resulted from this operation. The right angle of the mouth was very much raised, and a good deal of the eversion of the jaw and the dragging on the angles of the eyes, which had existed before the operation, was now remedied. The photograph shows the child's appearance at this stage. I regret not having had a portrait taken of him as he was at first, before any operation. Suffice it to say that the lip was far more drawn down than is here seen, the whole gums being exposed; the teeth had begun to project horizontally, and the dragging on the cheeks had begun to depress the outer angles of the eyes. None of the saliva could be retained.

* This operation resembled, in fact, the plan of Mr. James, but with the important difference that the gap, which he leaves to granulate, was filled in by a transplanted flap. See the observations made under No. 3.

Comparing this photograph with the above statement, it will be seen that a good deal of improvement had been obtained by this first operation, but still it was not so great as to suffice for the successful treatment of the deformity. I endeavoured, by carefully strapping the lower lip, and by the use of instruments, to raise the lip sufficiently to prevent the flow of saliva, but in vain. The left angle of the mouth was so much drawn down that the parts were still kept constantly moist. The principal cause of this depression was a somewhat vertical band of cicatrix, partly consisting of the remains of the original scar, partly formed by the cicatrization of the left angle of the transplanted flap, which (as noticed above) did not unite kindly.

*Second operation about three months afterwards.*—This band was dissected out, and removed down to healthy parts, the lower lip drawn up as far as possible, and thus an oval gap formed in the neck. A pattern of this was taken by pressing lint on the raw surface, and a flap considerably larger in all its dimensions was marked out on the left side of the chest and transplanted.

This operation was not successful. The flap itself did not slough, but its edges did. Most of the sutures consequently gave way, the flap shrank considerably in size, and the resulting gap filled up by cicatrization. The result was a tight band of cicatrix leading to the left corner of the mouth, the gradual traction of which displaced the lip almost as badly as ever, leading to entire exposure of the teeth and gums, and to ulceration of the latter.

*Third operation*, Jan. 3rd, 1863.—I determined to make a new attempt, on the same plan as the last, but more extensive, before resorting to any plastic operation on the lip and cheeks. There were now two chief portions of cicatrix; one horizontal, occupying the middle of the neck, and running round under the jaw towards the right side, partly the remains of the burn, partly the result of the union of the edges of the first operation. This cicatrix was of no great hardness, produced no contraction in the skin around, and would clearly not prove an obstacle to future treatment. Then there was on the left side a large vertical cicatrix, as above described, which ran up at the left angle of the mouth, very nearly to its red edge, and which had produced great puckering of the skin, both in the neck (on the left side of the scar) and in the chest. The lip was first liberated by a free horizontal incision; then the vertical cicatrix was dissected out, the dissection going as deep as was prudent, and the deeper bands divided with blunt-pointed scissors till healthy cellular tissue was reached, and no further traction could be felt. A great gap resulted, occupying most of the left side of the neck, anterior to the sterno-mastoid, as well as the lower part of the face, and reaching down over the clavicle. This was slightly narrowed above by uniting a little of the edge below the lower lip vertically by two silver sutures. Then a pattern was taken in paper of the gap, the paper placed on the left side of the chest, and a piece of integument, larger in all its dimensions than the paper, was circumscribed by an incision, and raised with all its subcutaneous fat from the surface of the pectoral muscles. The mamma was necessarily included in the flap. It was fixed as before. The operation was a severe one, and lasted three-quarters of an hour, but it was more successful than I had ven

tured to hope. The edges united by first intention wherever I had been able to unite the flap to a previously healthy surface. At the junction of the vertical and horizontal scars this was of course impossible, and here a slight separation of the edges occurred, giving exit for some weeks to a discharge of pus from below the flap. At the upper and left corner, also, the flap gave way a little, but in front the upper edge united by first intention, and the part below the red edge of the lip, brought together vertically, united so perfectly as to leave no mark whatever. The consequence is, that the lower lip is now perfectly raised, and the saliva retained completely. The only dressing is a piece of plaster carried vertically round the lower lip and forehead. The boy's present condition is represented by the accompanying portrait.*

This closes this troublesome case, I believe, as far as plastic operations can be applied to the cure of the deformity of the neck. The eversion of the lip and the flux of saliva being cured, I expect to remedy the position of the head and the obliteration of the chin occasioned by the projection of the transplanted flaps of skin, by the gradual action of properly-contrived apparatus. I shall hope at some future time to lay the result before the readers of THE LANCET.

Queen-street, May-fair, March, 1863.

## ON A CASE OF LARYNGITIS IN AN ADULT, IN WHICH TRACHEOTOMY WAS TWICE SUCCESSFULLY PERFORMED,

WITH AN INTERVAL OF SIX WEEKS BETWEEN THE OPERATIONS.

BY M. BROKE GALLWEY, ESQ.,
STAFF SURGEON-MAJOR, LATE ROYAL ARTILLERY.

SERGEANT J. G——, aged forty; service sixteen years; a man of robust frame and powerful *physique*, and of bilio-sanguine temperament. Had been ailing for four days before with "huskiness of the throat," and other symptoms of what he regarded as a "simple cold." On admission into the Royal Artillery Hospital at this station, he was at once recognised by his peculiar intonation of voice and anxiety of aspect to be the subject of laryngeal mischief. The posterior fauces presented a healthy appearance. Compression of the larynx from without occasioned pain. No febrile movement; pulse scarcely disturbed. To be well purged; hot linseed-meal poultices to be constantly applied to the throat, and hot barley-water frequently used as a gargle; beef-tea diet.

Matters continued much the same during the three days succeeding his admission, at the end of which time some dyspnœa began to overtake him; and rapidly thereafter he was seized with a sudden and convulsive fit of coughing, which evidently seemed to depend on something more than spasmodic action, and threatened immediate danger. The assistant-surgeon on duty in the building, with much tact and forethought, examined the back of the fauces with his finger, and, discovering the existence of a mechanical obstacle to respiration about the epiglottis, succeeded in drawing out a portion of yellowish and very consistent lymph, of nearly an inch and a half in diameter, and of about the same length as it was broad. Great and immediate relief ensued, but the improvement was only temporary. Ordered, two grains of chloride of mercury, and a quarter of a grain of opium powder, every four hours; mercurial inunction into axillæ and groins; mustard sinapism to throat; bowels to be kept loose. The epiglottis was now seen to be standing up, and œdematous.

About two hours subsequent to the paroxysm just described the patient experienced another severe attack of dyspnœa, which appeared to be attributable to spasm, since it expended itself upon his rushing out of bed and gaining the erect position, immediately after which the feeling of distress disappeared. A succession of these paroxysms ensued throughout the same day, but, in the intervals, the amount of distress was by no means urgent, and the pulse, save during the spasmodic phenomena adverted to, was very little ruffled. Night, however, coming on, and the recurrence of dyspnœa continuing, I opened the trachea immediately below the cricoid cartilage, with immediate and great relief to the patient's sensations. A full-sized silver tube was introduced and fastened into the windpipe, and the patient was able at once to lie down in comfort. Being much exhausted by what he had gone through the preceding twelve hours he fell asleep, and had several hours of refreshing rest after the operation. The mercurial action meanwhile was pressed, until affording evidence of its influence on the mouth, and the patient was well supported the while.

Sergeant J. G—— experienced no uneasiness from the first from the presence of the tube, and had not a single unfavourable symptom, from first to last, after the operation. He continued to wear the tube for a month, when it was discontinued, but not until after several previous ineffectual attempts to dispense with it, owing, evidently, to a diminution in the area of the rima glottidis, as evinced by the persistent alteration in the pitch of the voice, and the occasional recurrence of some dyspnœa. Three weeks later he was discharged the hospital, at his own earnest entreaty, to which I yielded a reluctant assent in consequence of the unfavourable season of the year. The external wound had firmly cicatrized.

Ten days later, Sergt. J. G—— re-presented himself at the hospital with a recurrence of the same disease in a subacute form, and, a second time, had to undergo the operation of tracheotomy, which was performed on the site of the original opening. The sequences of this procedure were a very close imitation of the sergeant's progress subsequent to the first operation; and I shall not, therefore, dwell longer upon them than to state that I took the precaution of confining him for a much longer period to his bed than I had done on the former occasion.

I now subjected him to another mercurial course, in the form of very minute doses of the bichloride in combination with the decoction of cinchona; and persevered with this plan of treatment, assisted by local counter-irritation over the larynx, for several successive weeks, hermetically sealing the patient the while within a line of screens, in the hope of cutting off draughts of air, and thus of confining him to an artificial and strictly regulated atmosphere. Month after month, however, rolled on without a diminution of the hoarseness of voice and roughness of breathing (*quoad* the transit of air through the larynx), while the sergeant was unable to endure even the momentary withdrawal of the tube.

The patient, while in the foregoing condition, passed out of my hands; and subsequently—i. e., during the summer of last year—was removed to one of the Channel Islands for change of air, where, I learn from him, he still continues to be unable to dispense with the tube.

In offering the foregoing sketch of a successful case of tracheotomy following on laryngitis, I have been influenced alone by a duty we all, I think, owe to this department of surgery—viz., to put on record an additional example of success from an operation which is still on its trial, and the results of which hitherto have been so unpromising as almost to deter the surgeon from its performance. I have, therefore, touched but lightly on the subject of the medical part of the treatment

* The original photographs are in the book kept for that purpose in the library of the Royal Medical and Chirurgical Society.

suitable in such cases; and, on this head, have only to say, that while many, perhaps, will consider my management of the present case to have been of too expectant a character, and to have lacked a more active employment of the time-honoured arguments in vogue in such cases, I consider we have so little proof of the beneficial tendency of loss of blood, of mercury, and of antimony in morbid conditions of mucous membrane (aye, even of antimony in bronchitis), that I did not entertain the first of these at all in the sergeant's case, and only sanctioned the second, during the acute stage, in compliance with the orthodox notions of the day, and, indeed, for want of a better and more apparent resource under circumstances so urgent as these, so unsettled have the notions of some of us become in relation to the *antiquas vias* of our art. And if I were pressed for an exposition of my own articles of faith in relation to the treatment of such cases, I should be obliged to confess that I know of no established principles to guide us in the management of laryngitis, of croup, of pericarditis, and, I fear, of a host of other serious disorders, in reference to the proper management of which I must admit myself to be entirely *at sea*, since the dominion of bleeding, of mercury, and of starving began to lose its hold upon our reason.

Woolwich, March, 1863.

## CASE OF ENCYSTED TUMOUR IN VAGINA.

By JUNIUS HARDWICKE, M.D.

I WAS called to Mrs. B——, living in the country, who had gone to the full time with her fourth or fifth child. On examination, I found that a non-pedunculated tumour had formed in the recto-vaginal septum, and was pressing forwards into the vagina. The head of the child (extra-uterine) was pressing down upon the tumour, and rendering it, during a pain, much more prominent and tense.

Finding (as my assistant, who had been the whole of the night with the case, had already sent me word) that it was impossible for the child to pass unless either the size of the tumour or that of the child's head were reduced, and diagnosing, by means of an examination made per rectum and per vaginam at the same time, fluid in the tumour, I at once determined to puncture it. Having waited for a pain, I introduced, under guard of my forefinger, the only sharp instrument I had with me at the time—viz., a penknife, upon which about a pint of serous (clear) fluid escaped, which produced a great collapse of the prominence. As the patient was becoming much exhausted, I introduced the forceps, which enabled me to deliver her of a living child very speedily. She has since made a rapid recovery without any untoward symptom, and has walked to my house carrying her baby, reporting herself, and appearing, quite well.

The only reported cases of encysted tumours in vagina I know of are the following:—

1. Reported by Dr. Ashwell, containing serous fluid, which burst into the cavity.

2. Reported by Dr. Langley in vol. vi. of the *London Medical and Surgical Journal* of Oct. 4th, 1834, p. 319, from which he released several gallons of serous fluid by puncture.

3. Reported by Dr. Lever in "Guy's Hospital Reports" (vol. vii., 1842), which he punctured, and a gelatinous fluid escaped.

Ramsbotham advocates puncturing if the swelling possess the least degree of fluctuation.

Rotherham, Yorkshire, March, 1863.

THE CONCOURS IN PARIS.—A very significant result of a late concours (or competitive examination), for a certain number of appointments of assistant professorships at the Faculty of Medicine of Paris has lately taken place. The vacancies had occurred in the section of medicine and medical jurisprudence, and among the candidates was Dr. Fournier, whose name is so familiar to all those who take an interest in scientific and practical researches in venereal diseases. M. Fournier was a long time a favourite house-surgeon of Ricord, and has published very elaborate works, enriched with valuable tables, on the above-named complaints. He was looked upon as a specialist; but he has proved one of those who, though investigating with ardour one branch of our science, are eminently competent in many others. Out of a dozen candidates for the envied position of assistant professor in medicine and medical jurisprudence, he was one of the four successful competitors!

# A Mirror
## OF THE PRACTICE OF
# MEDICINE AND SURGERY
## IN THE
# HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Proœmium.

## WESTMINSTER HOSPITAL.

### SEVERE CRUSH OF THE CHEST; EMPHYSEMA, BOTH EXTERNAL AND INTER-LOBULAR; RECOVERY.

(Under the care of Mr. BARNARD HOLT.)

THE following cases are from notes by Mr. Beadles, house-surgeon to the hospital:—

Henry H——, aged thirty-four, was admitted on Dec. 16th, 1862, with injury to the chest. Shortly before coming in, he had been crushed between two carts, which had "nearly squeezed the breath out of his body." On examination, it was found that the lower part of the sternum and the cartilages of three or four ribs on both sides had been driven in, so that there was a complete hollow at the lower part of the chest; but no fracture could be detected. The left clavicle, however, was fractured. He complained of great pain in the chest and difficulty of breathing, and was in a state approaching collapse. The patient was put to bed, and a bandage applied. He was ordered half a drachm each of laudanum and chloric ether in water every four hours. Four hours after admission he spat some florid blood mixed with the sputa, and this continued for twenty-four hours.

Dec. 17th.—Emphysema has appeared around the seat of injury, and extends up to the clavicles, but not lower than the injury. The bandage was obliged to be removed. The pain in the chest continues, and the difficulty of breathing has increased. There being no evidence on auscultation of pneumothorax or pneumonia, Mr. Holt diagnosed that there was inter-lobular emphysema, giving rise to the difficulty of respiration. He was ordered liquor of the acetate of ammonia, chlorodyne, sesquicarbonate of ammonia, and compound tincture of camphor, in water, every four hours.

18th.—The breathing is easier, and the emphysema has not extended beyond the clavicles. To continue the medicine.

22nd.—The emphysema is subsiding, and the breathing is becoming natural. The bandage reapplied.

27th.—The emphysema has disappeared, and the chest-sounds are quite healthy. Has an occasional cough.

Jan. 1st, 1863.—Cough still troublesome. To have ipecacuanha, squill, and henbane twice a day.

8th.—Quite well, with the exception of pain in the left arm, for which he was ordered an opiate liniment.

30th.—Discharged cured.

### GENERAL EMPHYSEMA FROM FRACTURED RIB; RECOVERY; CLINICAL REMARKS.

(Under the care of Mr. BARNARD HOLT.)

Mary Ann H—— received a violent blow on the left side of the chest on January 19th, for which she applied at the hospital, when a fracture of a rib was detected, and a broad bandage was applied. She attended on the following day in a state of inebriation, and was not seen again until the 23rd, when she presented herself in the surgery with every appearance of erysipelas of the face, the skin being red and swollen, and the eyes nearly closed from the swelling of the lids. For this she was at once admitted into one of the medical wards; but upon undressing her, it was found that the swelling extended over the whole trunk, and upon applying the finger the house-physician at once detected the crepitation of emphysema: the patient was therefore transferred to the care of Mr. Holt.

On examination, the presence of air in the subcutaneous cellular tissue could be readily detected all over the chest and abdomen as far as Poupart's ligament on each side, but the air had not passed into either of the thighs. The head and neck

were crepitant all over, and in both arms the characteristic crackle could be felt, even to the backs of the fingers. The patient stated that some swelling appeared on the chest soon after the injury, which her condition prevented her from explaining on her second visit; that she went home and took to her bed, having loosened the bandage, and had gradually got into the state in which she appeared on admission. The breathing was somewhat oppressed, and she had a slight cough. There was no evidence, on auscultation, of injury to the lung, the respiratory murmur being audible all over the chest; nor was there any evidence of the presence of air in the pleura. The bandage was now entirely removed, and the patient put on low diet, beef-tea, and four ounces of brandy, with an opiate draught at night.

Jan. 24th.—Emphysematous condition stationary. The cough continuing, she was ordered tartar emetic, tincture of opium, and camphor mixture, every four hours.

26th.—The cough has improved, and the patient feels better altogether; emphysema the same.

27th.—The swelling of the face is gradually diminishing, and the skin of the trunk is not so tense as it was. To discontinue the antimony, and take mixture of acetate of ammonia and paregoric every four hours.

29th.—Emphysema rapidly diminishing; had a stitch in the *right* side (opposite to injury), which was relieved by the application of turpentine stupes.

Feb. 2nd.—Emphysema has disappeared, except near the broken rib. Convalescent.

6th.—Has some pain in the left side, and the cough has become troublesome again. To take small doses of ipecacuanha and squill.

16th.—No trace of emphysema to be discovered; all pain and cough have disappeared. Discharged cured.

In some clinical remarks upon these cases, Mr. Holt observed that general emphysema rarely accompanied such a slight injury as the fracture of a rib from the blow of a fist, but was not an uncommon accompaniment of severe injury to the chest and lungs, as in the first case. He explained to the pupils the anatomical details of the affection, showing that of necessity both layers of the pleura and the lung itself must have been wounded, as evidenced by the bloody expectoration, in the first case, and that in all probability adhesions forming within a few hours of the accident had sealed together the two layers of the serous membrane at the point of injury, and thus prevented the air from filling the cavity of the pleura in these cases. The amount of distress in the two cases was contrasted, as showing that emphysema, external to the chest, when uncomplicated by internal lesion, gave rise to less urgent symptoms than a much smaller amount of emphysema taking place between the lobes of the lung itself. Mr. Holt pointed out, also, the absence of all evidence of pneumothorax in both cases, as shown by the auscultatory evidence of normal respiration in *both* lungs; whereas in that affection the lung on the injured side would have been compressed and useless, and the opposite one would have given evidence of increased action under the form of puerile respiration. In such a case, too, the respiration would have been very much more oppressed than in the present instances, and the affected side of the chest would have yielded a tympanitic sound on percussion. With regard to the error of mistaking the second case for one of erysipelas of the face, Mr. Holt observed that it was quite excusable if the eye alone were used, but that the finger at once detected the peculiar crackling of air in the cellular tissue with which the students had now had a good opportunity of making themselves familiar. He also pointed out the differences between an emphysematous and an œdematous swelling, with which it might possibly be confounded at first sight, showing that in one the swelling was elastic and crepitant, whilst in the other it was doughy, and would pit on pressure; and that the locality of the two affections differed, the one affecting the chest, head, and upper extremities, whilst the other was principally in the abdomen and legs.

With regard to the treatment, Mr. Holt observed that the second case, though apparently formidable, being evidently not of an urgent character, he had contented himself with waiting for the absorption of the air, which had occurred in due course, merely giving small doses of antimony for the first two days to relieve the breathing, which was slightly oppressed, and to prevent the occurrence of inflammation within the chest. In the first case, the chest symptoms had been more severe, but had yielded to the treatment by opiates and salines. Had the symptoms been more urgent, and, more particularly, had the case been complicated with the occurrence of pneumothorax, it might have been necessary to give relief by free venesection, which would have relieved the oppressed breathing more rapidly than other measures, by diminishing the quantity of blood to be aërated by the single lung which was at work. Some authors had suggested paracentesis thoracis in such cases, but Mr. Holt did not recommend any such procedure, believing that it could be productive of little if any good.

### GENERAL EMPHYSEMA FROM SEVERE INJURY TO THE CHEST; DEATH IN THIRTY HOURS; POST-MORTEM APPEARANCES.

(Under the care of Mr. BROOKE.)

James S——, aged fifty-one, was run over by a van loaded with timber on the 19th of February, the wheels passing over his right shoulder and across the chest obliquely to the left side. The accident occurred within a few yards of the Westminster Hospital, and he was immediately brought in and seen by the house-surgeon, who found him breathing with great difficulty, and with emphysema already commencing over the upper part of the chest. There was no spitting of blood, nor any other symptom of injury to the lung, though the ribs could be felt to be fractured on both sides, and also the right clavicle.

The emphysema rapidly increased, so that in a few hours the whole surface of the body became crepitant, and the eyes became closed from the enormous swelling of the face. This difficulty of breathing became very great, so that he was obliged to be supported with pillows to prevent suffocation. He was ordered chloric ether and brandy, with small doses of opium; but nothing relieved the symptoms. He passed some bloody urine, and complained of pain in the loins. He gradually became exhausted, and died quietly on Friday, Feb. 20th, (the day after the injury,) at seven P.M.

*Post-mortem examination.*—On stripping off the pectoral muscles, it was found that there was a transverse fracture of the right clavicle, just external to the costo-clavicular ligament; that on the right side, the first and second costal cartilages were broken close to their attachments to the ribs; and that on the left, the first rib was detached from its cartilage, and the second, third, fourth, and fifth ribs were broken about an inch and a half from the cartilages. On carefully turning up the front wall of the thorax, both lungs were found empty, and perfectly contracted on each side of the spine, owing, no doubt, to the fact of the pleural sacs having been distended with air. A careful examination of the pleura showed that there was no injury opposite any one of the fractured ribs; but there were a few old adhesions at the apex of the *right* lung, and upon drawing the adherent apex away, it was found that a rent had been made in the top of the pleura by the fractured clavicle, and that this communicated with the lung substance at the apex. That this was the only passage by which air could have entered the cellular tissue was considered to be demonstrated by distending the lungs with air, when every other part of the surface of the organs was found to be sound, and not adherent to the wall of the chest at any other point. The occurrence of double pneumothorax was difficult to account for; but upon removing the lungs, and carefully examining the posterior part of the chest, it was found that, in addition to the other injuries, the first, second, third, fourth, and fifth ribs on the right side were broken close to their necks, and that the third, fourth, fifth, and sixth on the left side were broken just posterior to their angles, and no doubt some injury had been inflicted on the lungs at some of these points sufficient to allow air to pass very slowly into the pleural cavities, although not detected after death. That air did enter the pleural cavities was incontestably shown by the collapsed condition of the lungs, and that it entered the pleura slowly is evidenced by the period which elapsed (thirty hours) between the injury and death. The emphysema might have been partially produced by the same cause; but considering that the presence of air in the cellular tissue of the root of the neck was detected within a few minutes of the accident, there can be little doubt that the emphysema began at least at the apex of the lung, as explained.

## GUY'S HOSPITAL.

### FATTY TUMOUR ON THE SHOULDER AS LARGE AS AN ADULT'S HEAD, WITH A VARICOSE ULCER ON ITS SURFACE; EXCISION.

(Under the care of Mr. HILTON.)

THE unusual case of an aged patient with a large and soft fatty tumour on the top of the right shoulder, was presented to the notice of the pupils at this hospital during the middle of February. The individual was a man seventy-five years old,

upon whose shoulder a tumour began to form twenty-seven years ago. It continued to grow until it had attained the dimensions of an adult's head, and lay flattened upon the shoulder, slightly pendulous to the outer side, resembling a huge epaulette. Indeed at a distance it seemed as if a flat human head had been transplanted upon the shoulder. Its upper surface contained a tolerably large, true varicose ulcer. Mr. Hilton said it was typical in that respect, for numerous and large veins were seen traversing the growth in various directions, and as the circulation was much impeded in them, it gave rise to the ulcer. It was readily ascertained beforehand that the diseased mass was fed by a large number of blood-vessels.

Chloroform was carefully administered on February 17th. Mr. Hilton then made a semicircular incision in front below its attachment to the shoulder, and dissected off the adherent integument; the same process was repeated posteriorly, when the bulky mass was readily detached. Many small arterial vessels had to be secured even before its removal, and several large trunks afterwards. The edges of the integument were not brought together by sutures, as the raw surface was too extensive, and it was therefore covered with lint steeped in cold water.

The patient's progress has been satisfactory; for as cicatrization is going on, so is the extent of denuded surface gradually diminishing, and notwithstanding the patient's great age, a good recovery is anticipated.

We may observe that the tumour in the present instance is probably the largest that has been extirpated since Mr. Pollock's remarkable case of a girl who had a similar kind of tumour removed from the back, which was recorded in our "Mirror" of December 13th, 1856.

An examination of the growth in Mr. Hilton's patient showed it to be wholly composed of masses of fat.

### FIBRO-PLASTIC TUMOUR THE SIZE OF AN ORANGE, OF FOUR MONTHS' GROWTH, ON THE BACK; ABLATION.

(Under the care of Mr. HILTON.)

A tall young woman, aged about twenty-two years, presented herself with a tumour the size of an orange, situated to the right of the fifth and sixth dorsal vertebræ. It was somewhat flattened, and the integument on its projecting surface was of a bright-crimson colour, of a mottled and streaky character. It first appeared about four months ago, and as its growth had been so rapid, it was feared it might prove to be malignant. The discoloration and some deceptive softness simulated an abscess. It was, however, slightly movable in various directions, and was extirpated by Mr. Hilton, under chloroform, on February 17th.

On section, it resembled adipose tissue of a very light colour. There was some of this structure at one part of it; but its general nature was subsequently made out to be fibro plastic. Its rapid growth, nevertheless, invests it with some amount of gravity; for it may be but the precursor of a series of recurrent fibroid tumours. The wound is nearly healed, and the patient's health is good.

### RECURRENT FIBROID TUMOUR ON THE SIDE OF A BOY, AFTER REMOVAL FOUR YEARS BEFORE.

(Under the care of Mr. DURHAM.)

A lad, about seventeen years old, was admitted with a tumour situated upon his left side, over the sixth and seventh ribs. It was as large as a small orange, and was developed immediately below an oblique cicatrix, the result of a previous operation at St. Thomas's Hospital, four years before, for the excision of a similar tumour. The present tumour was not painful, but there were two or three small tubercles above the upper edge of the cicatrix which were excessively so. They strongly resembled carcinomatous disease. On the 17th ult. Mr. Durham excised the whole of them, not interfering with the old cicatrix, and the result thus far has been satisfactory, with the exception of an attack of rheumatic arthritis. The nature of the tumours was found to be recurrent fibroid.

## CHARING-CROSS HOSPITAL.

### SUCCESSFUL CASE OF RESECTION OF THE ANKLE-JOINT.

(Under the care of Mr. CANTON.)

FOR the notes of the following case we are indebted to Mr. William Travers, house-surgeon to the hospital:—

John M——, aged fifteen years, tall and large-framed for his age, and of the dark strumous type; a native of the neighbourhood of Colchester. Has done "labouring" work for the past eight years. Father and mother healthy; one sister has died of phthisis. Always enjoyed good health himself, and the entire use of his limbs, until March last, when he complained (at first only occasionally) of pain on the outer malleolar region of the left leg. At length, the pain increasing in intensity and frequency, some slight swelling appeared over the site of the pain. He does not remember receiving any injury to his ankle at that or any other time. The swelling and pain now much increased, and appeared also on the opposite side of the ankle; he was therefore compelled to lay up entirely (May, 1862), and was admitted into the Colchester Infirmary, where he remained for four months, during which time his ankle was several times blistered and subsequently strapped; all, however, to no purpose as far as the swelling of the joint was concerned, which gradually but steadily increased, as did also the inability to use it. The pain, nevertheless, had now quite left him, and did not at any future time recur.

He was admitted into Charing-cross Hospital in October last. The ankle was then found to be much enlarged, the normal shape of the joint being entirely lost; there was also considerable bulging of the soft parts around, and some fluctuation was felt. The joint was very loose, so as to admit of being moved very freely in every direction. The measurements of the affected limb, as compared with the sound one, were as follows: The size of each limb around the lower third of tibiæ and fibulæ, alike; around the epiphyses, sound limb 9¾ in., affected side 12¼ in.; from the upper edge of the tibio-astragaloid articulation to the point of the heel, 12 in. sound limb, 14 in. affected limb; around the arch of the foot, 9 in. sound side, 9½ in. affected side. He does not complain of any pain; there is no starting in the joint; he eats and sleeps well.

Since his admission he had been kept in perfect rest by means of a splint, and counter-irritation applied to the joint; good diet and mineral tonics had been administered; but no noticeable change had taken place in the joint.

On Feb. 21st, 1863, Mr. Canton resected the ankle-joint in the manner suggested by Mr. Hancock in his paper on that subject: first making an incision, through the skin only, from about two inches above and behind the external malleolus, across the instep, to the same distance above and behind the internal malleolus; reflecting this flap, he dissected out the peronei tendons from their groove, and cut through the external lateral ligament; the fibula was then cut through with the bone-nippers at about one inch and a half from its lower extremity, and removed by dividing the inferior tibio-fibular ligament. Turning the foot on its outer side, he detached the tendons of the tibialis posticus and flexor communis digitorum from behind the internal malleolus, and divided the internal lateral ligament; the sole of the foot was then turned forcibly outwards, the lower end of the tibia being forced through the wound. This end of the tibia was then sawn off, as was also the articulating surface of the astragalus. No vessels were required to be tied after the operation. The parts were then carefully adjusted, a few sutures only being needed in the upper flap; the limb was placed on a T splint, and the patient put to bed.

No hæmorrhage nor any constitutional disturbance followed the operation. Up to the present time (March 19th) everything has progressed satisfactorily; the wound looks well, and is discharging healthy pus. Patient suffers very little pain, and eats and sleeps well.

## ST. BARTHOLOMEW'S HOSPITAL.

### CANCROID INDURATION OF THE BACK OF THE HAND, CAUSING SEVERE PAIN; EXCISION OF THE PART.

(Under the care of Mr. LAWRENCE.)

SOMETIMES apparently simple affections produce not only inconvenience, but also the most severe pain; and it is the latter which induces the sufferer to apply for surgical relief. Painful subcutaneous tubercle is perhaps one of the best examples. The skin itself, however, independent of mere nervous agency, is sometimes at fault; and when such cases occur, they are suspected to be cancerous in their nature, although there may be no actual breach of surface. A case of this kind was admitted into St. Bartholomew's Hospital in the person of a woman aged about fifty-four, who was care-worn and anxious-looking, from severe pain and suffering (on and off for five or six years) in an indurated and hypertrophied patch of skin on the back of the right hand, situated between the metacarpal

bones of the thumb and index-finger, but encroaching somewhat on the thumb. To the naked eye it looked like a prominent old cicatrix, with fissures traversing it. Its edges were excessively painful. There was no ulceration or discharge, although it had been touched with caustics and other substances before the patient's admission. Although most probably not genuine carcinoma, it was something like it, and therefore we have denominated it cancroid. It was removed by Mr. LAWRENCE on the 9th November, when the patient was under the influence of chloroform; and on section it was found to be very hard, with a little round tubercle at one part beneath the skin, the size of a pea. Mr. LAWRENCE believed it was benign, but observed that his colleague, Mr. SAVORY, would hardly like to say so until it was examined by the microscope. The wound healed, and the nature of the growth proved to be innocent.

## ST. GEORGE'S HOSPITAL.

### VASCULAR TUMOUR OF THE URETHRA, EXCEEDINGLY PAINFUL, IN A GIRL; EXCISION.

(Under the care of Mr. POLLOCK.)

AN instance of this form of growth, characterised by extreme pain and suffering, in an otherwise healthy girl, aged eighteen, was admitted at the beginning of March. It occupied the commencement of the urethra, and the slightest contact of the neighbouring parts not only caused exquisite pain, but produced bleeding from the surface. It possessed a bright crimson colour, and kept up so much irritation as to occasion frequent calls to empty the bladder. Chloroform was administered on the 5th of March, the patient placed in the lithotomy position (without tying the hands and feet), and the mass laid hold of by a pair of long forceps, and then completely dissected out by Mr. POLLOCK with a fine scalpel. There was comparatively little bleeding, and the cut surface was covered with a piece of wet lint.

It is common when extirpation is complete for a perfect cure to result; and that has occurred in the present instance, as well as in two others in which Mr. POLLOCK operated a short time previously.

# Medical Societies.

## PATHOLOGICAL SOCIETY OF LONDON.

MR. PRESCOTT D. HEWETT, PRESIDENT.

### ABSCESS BETWEEN THE RECTUM AND THE OVARY.

DR. BRISTOWE showed this specimen from a woman aged forty years, who died after a month's residence in the hospital from obstruction of the intestines. The transverse colon was drawn down by adhesions to the ileum to an acute angle, and ulceration occurred, making an opening between the two portions of intestine. There were two small ovarian cysts also, one of which communicated with an abscess in the neighbourhood of the rectum, which communicated with the latter, and discharged through it. A similar case in this respect had been under Dr. BRISTOWE's care, in which a great abdominal enlargement had disappeared after the discharge of the contents by the anus, no doubt through a like communication between the ovary and the rectum.

Mr. HEWETT was disposed to think that the disease in this case was tubercular in its character.

Dr. BRISTOWE thought it was so. There were tubercles in the lungs. It was highly probable, although he had not been able at the post-mortem to detect tubercular matter.

### JAUNDICE IN TYPHUS FEVER.

Dr. MURCHISON stated that it was well known that jaundice was a very uncommon symptom in typhus fever. Many observers had even doubted its occurrence. He had seen it in three cases within the last twelve months, and it was a very serious one. In all cases the urine had bile colouring matter. In two he had found the bile-acids, and he obtained the crystals of tyrocine and leucine in the urine, and showed specimens to the Society. In one of the cases the urine seemed almost destitute of urea. There was no obstruction of the bile-ducts in these cases.

### REPORT ON MR. NUNN'S CASE.

Mr. HOLMES read a report by himself and Mr. NUNN on the specimen exhibited by Mr. NUNN at the last meeting, from which it appeared that the mass of the tumour was situated in the subperitoneal tissue. It resembled in structure that of the ordinary fibroid tumours of the uterus. There was no evidence to show that any part of it was malignant. It was, then, fibro-cystic tumour affecting the parts named. In reply to a question by Dr. GRAILY HEWITT, he said the cysts were defined by distinct membrane, and were true cysts, not mere interspaces.

The PRESIDENT referred to the fact that several such cases had been met with,—one specimen was in the College of Surgeons of England,—and such cystic tumours had been tapped on the supposition that they were ovarian.

Dr. GRAILY HEWITT mentioned such a case, which came under the care of Mr. FLETCHER, of Liverpool, who tapped it. He referred to the important and interesting question of diagnosis between these and ovarian tumours; also to their origin, respecting which he would venture to suggest that there had been a detachment from the ovary, and a transplantation to the body of the uterus. There was a good deal of evidence to support this view, some of which he adduced. Such transplantation might occur in connexion with the phenomena of ovulation. The tissue of the ovary itself consisted of a stroma containing cysts; it might acquire vascular connexion with the uterus, and go on to produce an example of this rare disease.

### MALIGNANT DISEASE.

Dr. DICKINSON showed a rather rare form of malignant disease occurring in cellular tissue, from a patient (a labourer) seventy years of age. It occurred in the thigh, after which the whole of the skin of the body showed these subcutaneous nodules, from the size of a nut to that of a walnut. Ulceration occurred in the groin. He very soon sank from debility. At the post-mortem examination, epithelial cancer was found covering the glans penis under the prepuce. All the glands of the body were affected. There was a nodule of encephaloid in the heart.

In reply to questions from Mr. NUNN and Mr. MAUNDER, Dr. DICKINSON said that the patient was quite well until three months before death, and that there was no congenital or other phimosis.

Dr. MURCHISON adduced a similar case which he had seen, and alluded to others: they were, however, very rare.

The PRESIDENT stated that all the cases of cancer of the penis which he had seen, he had found associated with phimosis. He by no means inferred an invariable rule from these facts.

### COAGULA IN THE HEART'S CAVITIES.

Dr. BRISTOWE showed these as bearing on specimens exhibited at the last meeting, and as continuous with a previous series of twenty-three cases brought forward by him at the Society in 1855. In all these, the fluid found was in no respect purulent, but merely softened fibrin. Since this he had collected forty-two more cases, two of which he now showed. Twenty-nine were males, and thirteen females. He gave particulars of the situation of the clot, of the ages of the patients, and of the diseases causing death. Nearly all were cases of slow death. In one case only was there true pus in any of these clots—a case of scarlet fever. The conclusions arrived at were the same as those educed from the previous series.

### WOUND OF THE POPLITEAL ARTERY AND VEIN.

Mr. MAUNDER showed this specimen from a boy who was stabbed in the thigh by another boy. Profuse hæmorrhage followed, and with pressure it ceased. The compress remained two days, the limb swelling. A week after, a spurious aneurism was found, and the swelling was very considerable. He was removed to the London Hospital. After consultation, the aneurism was laid open, and a wound of the popliteal artery being found, a ligature was placed above and below. Still the hæmorrhage continued, and Mr. MAUNDER amputated immediately. The popliteal artery was discovered partially divided, and the vein transfixed. The boy died on the fifth day.

Mr. HOLMES stated that, in a recent similar case in an adult, Mr. HOLTHOUSE had tied both artery and vein (popliteal), and successfully. JOHN HUNTER had done the same thing.

Mr. HEATH witnessed Mr. HOLTHOUSE's operation, and confirmed that account. He had seen a similar case, in which, the patient being kept purposely in a very low condition without any stimulant whatever, no spurious aneurism formed.

Mr. MAUNDER called attention to the fact that in his case

it was a punctured wound of the artery, and not complete division.

Mr. HULKE said it was a very important item in Mr. Maunder's case that the vein had continued to bleed after the deligation of the artery.

The PRESIDENT related an illustrative case, in which the femoral had been half divided.

MALIGNANT TUMOUR.

Mr. MAUNDER showed this specimen, which was taken from a child aged six years, and from whom the eye had been previously removed for cancer. It was a very large mass, separated by the "flèches" of chloride of zinc and flour, such as Maisonneuve employs. After the action of this substance, the tumour was torn away, and the pedicle cauterized.

ENORMOUS PHAGEDÆNA OF THE ABDOMINAL PARIETES.

Mr. GAY exhibited this specimen, consisting of the right lobe of the liver, taken from a man aged twenty-one years, who was of healthy family. In September last he was attended for supposed disease of the liver: matter was forming in the hepatic region. This was punctured, and a large quantity of pus issued; subsequently burrowing occurred towards the umbilicus, and sloughing of the wound took place. Mr. Gay saw him for the first time in January, and found an enormous ulceration, involving the abdominal muscles to a great extent. Tonics were given, and deodorizing agents applied. He got weaker and wasted much, the sore increasing to the size of a foot square, and almost all the abdominal muscles having disappeared. After death, it was found that the liver was involved also; the colon had been perforated, but effusion prevented by adhesion to the peritoneum. There was extreme fatty degeneration of the liver. Mr. Gay mentioned a somewhat similar case which he had seen eleven years ago following an operation on the breast. In the recent case there had been no sphacelus of masses. The parts had slowly but steadily melted away.

DISLOCATION AND FRACTURE OF ASTRAGALUS.

Mr. HOLMES exhibited this, from a patient at St. George's Hospital, who dislocated his astragalus in France. It was reduced there, and he was sent over at his own request in a necessary apparatus. Abscesses formed, and ultimately nearly the whole of the bone was removed, fractured. A portion of the external malleolus was broken off also, and came away. The case was going on well. In many cases of this accident exfoliation ultimately resulted.

CANCER OF THE FEMALE BLADDER.

Mr. HOLMES presented this, as an example of primary cancer not affecting any of the sexual organs. There had been much hæmorrhage; but the patient died of cerebral disease, not cancerous, but simply atrophic softening of both hemispheres.

FAT IN THE PLEURA.

Mr. TEEVAN presented an example of fat in the pleura. It formed a layer covering the lung, and existing in the adhesions between it and the pleura costalis. It appeared not to be fibrin degenerated into fat, but well-formed fatty tissue. He referred to Sir Astley Cooper's report on the lungs of King George the Fourth as relating to this subject.

Dr. GIBB exhibited a series of diagrams illustrating

DEFORMITIES OF THE LARYNX IN FOUR INSTANCES.

Two were congenital, and two acquired.

1. *Congenital deformity of the larynx in an adult deaf-mute.*—A man aged fifty-four. The epiglottis was half its usual length. It lay low down in the larynx, concealed or exposed according to the action of the right aryteno-epiglottic fold, which projected across the glottis towards the left side. The left fold was wanting, as were also the vocal cords. The epiglottis was useless for all practical purposes. This man's wife, also deaf and dumb, had no vocal cords.

2. *Congenital deformity of the larynx in a deaf and dumb boy.*—The age of this boy was fourteen years and a half. The epiglottis was shortened as in the first case, and originated low down, close to the vocal cords; it was therefore practically useless in deglutition. The glottis was covered by the two usual folds, but originating from the back of the tongue. The vowels were well articulated.

3. *Deformity of the larynx, with a double voice, the result of a wound of the left vocal cord.*—The subject of this was a young man, who fell upon the point of his penknife some three years before, the blade entering the neck close to the larynx for upwards of an inch. Dysphagia and aphonia followed, and on recovering his voice, it was ever afterwards double, being a mixture of tenor and bass. The structures of the larynx were oblique in direction; the left vocal cord was narrowed and contracted near its attachment to the arytenoid cartilage, and did not meet its fellow at this situation. A very distinct oblique cicatrix could be seen, showing where the cord had been at one time divided. His sentences were very short.

4. *Deformity of the larynx and alteration of speech from small-pox.*—The subject of this was a woman aged forty-three, who had had small-pox at the age of four years, with a fit, and subsequent aphonia for a short time. Speech was ever afterwards indistinct. Mr. Ure operated upon her for strabismus when she was twenty-one. Never could sing. The right vocal cord was destroyed, and her language has remained that of a child in pronunciation ever since—e.g., calling good "dood," silly "chilly," and so on.

# Reviews and Notices of Books.

*China from a Medical Point of View in* 1860 *and* 1861: *to which is added a Chapter on Nagasaki as a Sanitarium.* By CHAS. ALEX. GORDON, M.D., C.B., Deputy Inspector-General of Hospitals, Army Medical Department. pp. 464. London: Churchill.

DR. GORDON has here presented us with a work having a twofold interest. His book affords, on the one hand, a good description of certain portions of the topography, climate, manners and customs, natural history, &c., of China and its people; and, on the other hand, gives precise information upon the phenomena of disease, and of its effects upon our troops employed in the "Land of the Celestials." Hong-Kong, Canton, Peiho, Tein-Tsin, are the chief places described by Dr. Gordon. Of the last-named place he speaks "as the most hated of all in which it has been my lot to serve," and it is quite clear that the author's experience has not been very limited. Upon bidding good-bye to it, much to the pleasure of the party on board the *Vulcan*, the stock of coals in possession was declared too small to take the vessel to Hong-Kong. It therefore became necessary to put in at one of the nearest ports of Japan in order to replenish the stock of fuel. Nagasaki being the most convenient port to touch at, towards it accordingly was the *Vulcan* steered. Nagasaki proved itself to be as full of charms for Dr. Gordon as Tein-Tsin was devoid of them. The Japanese are evidently in high favour with the author. As regards the chief point of inquiry, and as to what the Deputy Inspector thinks of the climate of China, the following extract will be sufficiently instructive:—

"In the course of my notes on China, I had occasion more than once to remark how very desirable would be a sanitarium somewhere in Japan to which invalids from our stations in the former might be sent. My cursory examination of Nagasaki convinced me that here is really the best possible situation for such an establishment. The place itself possesses in an eminent degree all the ordinary indications of being a healthy one. Building materials are abundant, and cheap labour is procurable to any extent. I have good reason to know that a site for a sanitarium could readily be purchased or rented from the local Government; and, as already observed, the people seem to be well disposed to us. An inspection of a map will show that Nagasaki is most conveniently situated in regard to our various stations and settlements upon the coast of China. So convenient is it, that invalids might be transported thither from Hong-Kong in a little shorter time than five days, from Shanghai in three, and from the Gulf of Pecheli in about four. Thus sick men would in this brief period be enabled to exchange the frightful climate of these places during the most unhealthy season for a climate as near as possible similar to that of one of the most favoured parts of England; and no person can fully comprehend how vast a blessing this would prove to men prostrated by sickness and pining to death in such pestiferous places as these are, unless he himself has witnessed the sufferings and abject despair of unfortunate men who, for want of such an asylum, die poisoned from climatorial causes from which they could not be removed."—p. 463.

Dr. Gordon favours us with his opinion upon a point which,

in reference to medicine and China, has been much canvassed. We allude to the union of hospital and dispensary work with missionary labours. From what he observed and learned

"From some of our countrymen on the spot who were able to converse in the native language, I am convinced that the establishment of hospitals for the treatment of sick in China, as a means of converting the natives of that country to Christianity, is not calculated to be successful.

"By means of our surgery, or by the introduction of any of our other sciences, we pave the way for the introduction of our philosophy and religion; but to endeavour to bring about the conversion of a native while he is helpless, prostrated by disease or accident, for the treatment of which alone he considers he was brought to the hospital, looks in his eyes, and in those of his countrymen, very much like taking an advantage of him. I am fully aware how delicate is the nature of the question upon which I now touch. Every man has a right to hold his own opinions upon it, as upon all others; and while I express mine, those of my readers who differ from me are no doubt quite justified in doing so."—p. 439.

Dr. Gordon's book may be confidently recommended to the general reader as well as to the members of the profession of medicine. Every medical officer going to the East should be provided with it, as containing much valuable information he will certainly stand in need of, and as being highly suggestive to future zealous workers in the Medical Department of the Army.

---

*The Principles and Practice of Obstetrics.* By GUNNING S. BEDFORD, M.D., Professor of Obstetrics in the University of New York, &c. Third Edition. pp. 743. 8vo. New York.

WITHIN thirteen months from the first appearance of the "Principles and Practice of Obstetrics," Dr. Bedford has been called upon for a third edition. Under any circumstances this is a gratifying proof that the author's exertions have been appreciated; but it must especially be so regarded when it is remembered that the present unhappy and disturbed condition of his country is highly unfavourable to the progress of science and the encouragement of literature.

Dr. Bedford's treatise very much resembles in style and arrangement our own manuals on midwifery; and, doubtless, it will take the same position in America that is held in England by the works of Dr. Tyler Smith, Dr. Murphy, and others. The author shows that he has thoroughly studied the writings of these gentlemen, as well as those of Barnes, Churchill, Collins, Denman, Ferguson, Lee, Rigby, Simpson, Tanner, West, and others. Reference is also freely made to foreign authorities.

Dr. Bedford divides his work into forty-seven lectures; and in these discourses directions are given for the diagnosis and treatment of every case which can possibly fall under the notice of the practitioner of obstetrics. The great object of the Professor has been to present to his brethren a practical book—one in which shall be developed the phenomena of parturition in their various phases as they occur in the lying-in room. The anatomy of the pelvis and genital organs, and the special bearing of this part of the subject on parturition, have been minutely dwelt upon. Abortion, the mechanism and management of labour, ante-partum and post-partum hæmorrhage, placenta prævia, puerperal fever, puerperal mania, phlegmasia dolens, anæsthetics, &c., have all been considered with the fulness their importance demands. So also the subjects of manual, instrumental, and premature artificial delivery have been discussed freely and at length. On the subject of instruments the author speaks clearly and without reserve, raising his voice in the most emphatic manner in rebuke of what he believes oftentimes to be their unnecessary and reckless employment. He delights in the proverb that "meddlesome midwifery is bad;" but, in our opinion, he is somewhat sentimental on this head, and allows his feelings "in behalf of suffering woman, in the hour of her need," to overcome his judgment. We have no hesitation in saying, after considerable experience, that very much more mischief arises in this country, both to the mother and child, from delay in using instruments than from their improper or unnecessary application. For example, we know of at least half a dozen cases of vesico-vaginal fistula which have been solely due to sloughing produced by the too long-continued pressure of the fœtal head upon the bladder, while we can only remember one case where there was even a suspicion that the unskilful use of the forceps caused this accident. We are free to confess our disbelief in all *proverbial* systems of treatment, and are sure that a feeling of reverence for the popular saying which has led to these remarks has done much mischief. The proverb is fit for the guidance of the opponents of chloroform and ovariotomy, as well as for unskilful midwives; but it will not be acted upon by those who think for themselves, and who have seen the misery and after-suffering produced by a lingering or difficult labour, when the resources of art have been too long delayed.

It is a duty to the purchasers of the previous editions of this work to inform them, that as only a few months have elapsed since the publication of the first issue, the author does not appear to have thought it necessary to do more on the present occasion than to append a chapter on Phlegmasia Dolens. This addition certainly renders the volume more complete, and must make it, therefore, more acceptable as a general text-book for students.

---

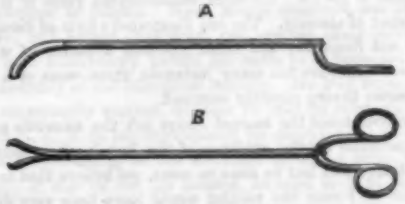
# New Inventions

IN AID OF THE

# PRACTICE OF MEDICINE AND SURGERY.

## NEW LITHOTRITY FORCEPS.

THE engraving represents a pair of forceps used successfully by Mr. Fergusson, at King's College Hospital, in an operation for extracting fragments of stone from the bladder after crushing with the lithotrite. It resembles in external appearance the ordinary sound used by Mr. Fergusson, with the exception of the handles.




The letters A and B refer to the instrument closed and open. The length is eleven inches in the shaft, and is reduced in size from below the opening of the blade to allow of the instrument rotating more freely in the urethra.

The advantages of its employment consist in the ease with which it can be introduced into the bladder, its facility of enabling the operator to find the stone, and the sense of palpation by which he can be sure of the substance he has between the blades of the instrument. It is, in fact, like a long finger.

The idea of its construction, in the present instance, arose from a somewhat similar pair of forceps, made for Dr. Fred. Bird for the purpose of removing polypus growths from the uterus being shown by Mr. Pratt, the instrument-maker of Oxford-street, to Mr. Fergusson, who at once recognised the advantages likely to be derived from the use of a similar instrument in lithotrity.

The joint itself is, we believe, not new, as an instrument upon the same principle was invented by Mr. C. Brooke, surgeon to the Westminster Hospital, for bringing the edges of wounds together in deep-seated plastic operations. The application, however, to lithotrity is stated to be entirely novel, and as such is worthy to be brought before the notice of the profession.

# THE LANCET.

LONDON: SATURDAY, MARCH 21, 1863.


FOLLOWING on the conviction of CHARLES FOOKS, to which we directed attention in THE LANCET last week, the case of EDWARD ALFRED PREEDY is deserving of notice. The prisoner, a convict at Portland, was tried for, and found guilty of, the wilful murder of CHARLES EVANS, one of the warders of the prison. It appeared that EVANS, accompanied by three men, was going his rounds, collecting the tins and knives. On PREEDY'S cell being opened, he rushed upon EVANS, seized him with his left hand, raised a knife with his right, and struck him under the ear with the weapon. He seemed to jerk the knife in the wound. The affair was instantaneous, and EVANS'S death immediate. PREEDY was at once secured. When placed in the dock the prisoner had a harmless appearance. During the evidence he became restless, and sharply asked a question. Immediately after the answer he attempted to get out of the dock, when an almost deadly struggle took place between him and the attendants. It required eight or ten strong men to hold him. Ultimately he was heavily ironed, and the trial proceeded. He was proved to have expressed himself with angry feelings against EVANS, and to have threatened him. Insanity was the defence set up. The chief circumstance relied on was PREEDY'S extreme sorrow and dejection for two days at the death of a pet sparrow, together with his conduct in court. There is no analogy between the previous history or conduct of FOOKS and that of PREEDY; yet in both cases the same plea was raised. One accomplished an act at variance with the whole conduct of his life; the other consummated years of crime by a climax of atrocity. The one illustrated a form of disease happily not frequent; the other followed a course of which at present there are too many instances, three cases of a similar character having recently occurred.

On both trials the learned Judge left the scientific evidence as materials for the guidance of the jury in their estimate of the facts; and had he done no more, we believe that in the instance of FOOKS the verdict would have been very different. But he went farther, and laid down the legal test of responsibility, as decided by the fifteen Judges, to be a consciousness of right or wrong at the time of the committal of the act, and directed the jury to find in accordance with their judgment on that point. We protest against the legal standard by which criminality is in such cases determined. Every practitioner of special experience must confirm the opinion of Dr. TUKE, that the knowledge of the nature and consequences of an act may coexist with an insane impulse to its commission. As there is a form of nervous disease manifesting itself in the sudden and unforeseen convulsion of the body, which, after the fit has passed, resumes its usual condition, so there is a character of mental disorder developed by the unannounced commission of acts, indicating as it were a paroxysm of the mind, to which the subsequent mental condition affords but a negative clue. In neither case is the individual so afflicted capable of self-control, and both instances are facts equally within medical experience and recognition. Both imply the operation of a subtle yet an ascertained morbid condition. The law as it now stands recognises no such form of disease. It refuses to separate responsibility from knowledge, and argues somewhat in the manner following:—Admit the consciousness of the nature of an act with an alleged incapacity to resist its commission, and you find an excuse for every crime. Act on ESQUIROL'S opinion, that there exists a species of homicidal madness in which no disorder of the intellect can be discovered, and by what rule are you to provide for public safety? Adopt the view of Lord HALE, that all crime is the result of partial insanity, and then say what ratio must they bear to each other—how little of crime, and how much of insanity, for the guidance of justice? Such arguments not only beg the question of responsibility, but repudiate the existence of disease. Happily, when they arise in practice, they provide their own answers in the separate circumstances of each case. We affirm as a fact that many instances of mental disorder are incapable of being embraced within our present legal circumscription, and require the judge, when propounding the adopted test of responsibility, to add, that legal guilt implies a normal mental capacity of acting according to the sense of responsibility involved in the knowledge of the nature of the act. Had this course been adopted on the trial of CHARLES FOOKS, we believe the jury would have hesitated before visiting on the creature the calamitous dispensation of the Creator. When cold blooded malice perverts the mind, or hardy ruffianism sways the temper, we abhor that sentimentalism which seeks to extenuate guilt, and finds excuses for predetermined crime because it is hastily perpetrated. There is no analogy between such reckless vice and the operations of the subtle disease we have particularized. When physicians who have devoted many years to the treatment of mental affections express their deliberate opinion that a particular condition exists, and when this opinion is confirmed by surrounding facts, the interests of justice and the cause of humanity alike demand that such an authoritative experience be permitted to modify a dictum of law, which repeated examples show is inadequate to embrace admitted phases of morbid action. "The execution of an offender," writes Sir EDWARD COKE, "is for example: the execution of a madman would be a miserable spectacle, and one of extreme inhumanity and cruelty." Are we now less merciful and just than when this was spoken? Is it reserved for the present day to affirm that the teaching of experience and the deliberate conclusions of medical science are alike to be disregarded in the gravest questions affecting human life.

These are questions that come home to each one desirous to preserve unblemished the public justice of this country, which has hitherto been our pride as well as our protection. It cannot be denied that at present a fearful amount of insanity exists. A more profound pathology, and a closer analysis of vital phenomena in connexion therewith, have constituted its recognition a matter of scientific certainty within the knowledge of those who make mental diseases their study. What value should be attached to their evidence? Is it to be disregarded as the idle trifling of curious speculation, or the serious conclusion of sober thought? We apprehend that few will advocate the former proposition. If the latter find acceptance from those whose minds are educated to a just estimate of facts, to them we appeal in behalf of many afflicted by Providence in a way that places them entirely dependent on others for protection. Are we who enjoy the blessings of health and

sanity—whose daily duty as well as privilege it is to minister to those suffering in body—to abate our efforts for the preservation of life because disease assumes a foul form, or may leave its loathsome trace? What would be thought of such a proposition? And yet, when mental alienation makes a man a mere toy of passing emotions—when, the light of reason being obscured, the mind drifts in vague wandering at the mercy of every impulse from within, or suggestion from without, until a violent shock for a moment dissipates the gloom, only to reveal some horrible reality as its cause—are we to forsake the victim of such disease because his hands be imbrued in, though not stained with, blood? In far climes, among untutored tribes, the sick were placed apart to die uncared for. We, in our refinement, improve on that plan, in according to popular clamour, or legal incredulity, a double triumph in the execution of the insane, thereby outraging humanity under the semblance of justice.

After these observations were written, we received a most important communication from Dr. SMITH, the medical attendant of FOOKS, to which we direct attention (p. 338). A trial has also taken place at Maidstone for a closely similar offence, which presents points of special importance. We shall deem it our duty, therefore, to recur to this subject.

---

A DOCUMENT has been addressed to us for publication which carries this unpleasant business into a further stage, and renders the present attitude of obstinate silence on the part of Mr. PROPERT even more untenable than heretofore, because more injurious to his own character, and to the prospects of any institution in which he holds a prominent position and which depends upon professional support. This document proceeds from Mr. MAITLAND, the secretary of a public Society to which Mrs. RUSSELL and "her lovely daughter" had appealed for assistance. It includes two statements of importance. The one is, that Miss RUSSELL had stated to this gentleman that she was working for a stall held by Mrs. ADAMS, long before the date at which her mother swore that she had accepted Mr. ADAMS's addresses, in ignorance that he was married; the other, that he was shown by the RUSSELLS a letter purporting to be written by Mr. PROPERT, and on paper stamped with his address, undertaking to furnish funds for bringing into court the charge against Mr. ADAMS. Now there need not be, and ought not to be, any mistake as to the imputation which is implied by this statement and that attributed to Mr. TOYNBEE. They do not imply that Mr. PROPERT actually paid the funds for the recent trial at Westminster: that must be regarded as set at rest by his solemn affirmation to the contrary. We could not permit a doubt to find expression of any statement which Mr. PROPERT makes. We believe that he does not dispute having paid the expenses of the day when the trial was called on and postponed at Kingston. Of course he cannot dispute the tenor of the letters which he addressed to Mr. MACKRELL, in which he refused to hear anything that could be said in explanation on behalf of his brother-practitioner who has been the victim of this affair, and expressed confidence that his solicitor, to whom he had referred the matter, would conduct it properly; nor are we aware that he denies having stated to Mr. TOYNBEE that if it cost a thousand pounds the case should be tried; and the statement of which we now speak is another and stronger piece of evidence, of which we really cannot decide the accuracy or exact correctness. No one but Mr. PROPERT himself can clear his character. It is impossible but that he must feel how grievously he is compromised in the eyes of the profession to which he belongs, whose estimation he must prize, and who regard him at this moment with eyes half averted, divided between pain and doubt, regret and sincere regard. Mr. PROPERT has too often had recourse to our good offices, for noble objects which in common with us he holds most dear, not to feel that something like personal favour towards himself, and earnest regard to his long services and honourable career, have impelled us to withhold that condemnation which even now we will not yet pronounce. Every motive which can urge the most reticent of men to speak out the whole truth, to lay his defence before his brethren, to correct any exaggerated or false statements which may have found credence, to clear his character and restore himself to the favour of his profession, now combines to press Mr. PROPERT to break the ill-judged silence which has half condemned him. If he has a defence, obstinacy in withholding it becomes a crime against himself, an offence to his profession, and a grievous blow dealt at that institution of which he is the official representative, and which incessantly appeals through him, its founder and chief manager, for that support and encouragement of which his character has long guaranteed the advantageous application.

---

STATISTICS, though forming very dry mental food to digest, are yet capable, as everybody knows, of becoming converted into highly nutritive material. The mind must be occupied as well as the stomach; and means, averages, and rates are very fit things for its occasional employment. But the powers of mental digestion must be good for statistics to yield profit. Facts are stubborn things, and require careful management, or they may do more harm than good to the system which they were intended to benefit. Weak minds must not use them carelessly, and strong ones must not overtax their powers. Let no man incautiously permit his name to be proposed for the membership of the Statistical Society. He may expect to be only occasionally amused, whereas he will be substantially benefited—i. e., if he has the capacity for enjoying the several delectations pertaining to the evolution of means, rates, and averages. If this be not his mission, he must seek to enrol himself amongst other *illuminati*. Some desperate statistician—some hard-grained "GRADGRIND"—has averred, that it would better serve the purposes of his craft if men, instead of being christened, were numbered and ticketed. More could be made out of them in this way; the facts, indeed, could be more easily referred to. Not the least drawback of this scheme would be the dreadfully long numbers we should have to remember. But statistics have been getting Utopian. There is yet some poetry and feeling in humanity as well as means and averages. The more concentrated nutriment, if employed as an only article of diet, will disorder the stomach. There must be a proper admixture of light and solid. Cheese is all *caseïn*—a most concentrated form of nitrogenized aliment; but who could long digest nothing but Stilton or old Cheshire? So with statistics: they are admirable adjuncts, but cannot serve as the entire mental diet.

A few months back (*vide* THE LANCET, vol. ii. 1862, p. 448) we offered to our readers a little dish of professional statistics—a record of numbers illustrating the average age, death-rate,

&c., of the members o the medical profession. We may repeat here something of the same kind, feeling assured that our statistics cannot fail to be of interest. We are enabled, then, from the same authentic source of information we formerly relied upon, to place before the profession the following items in connexion with the number and causes of death of our brethren who died in England and Wales during the past year.

The total number of deaths in England and Wales in 1862 was 300. These deaths were distributed over 47 counties, the greatest number occurring in Middlesex and Lancashire; next in Yorkshire and Surrey. Twenty-seven others died abroad, and are not included in the above number. Of these 300, 124 reached the age of 60 years and beyond; 26 died between the ages of 78 and 88, and 3 attained to the revered and maximum age of 93. The shortest life recorded is that of 21, at which early period one medical brother laid him down to rest. The average age of life attained by the above 300 was 55 years and 5 months—an average rather under the usual limit. In 1860 it was 55 years and 7 months, and in 1861, 55 years and 9 months. As illustrating some few of the causes of death, we may observe that 3 died from intemperance, 4 from suicide, 1 was wilfully murdered, (Mr. PUCKETT,) 4 met their deaths from accident, 1 was "found dead," 43 yielded to phthisis, 2 to diphtheria, and 29 to disease of the heart. Twenty-two are recorded to have succumbed to senile exhaustion, or "old age." Amongst the causes of death we find the following also certified:—Gastric debility, natural causes, catarrhal symptoms, not stated, natural decay, decay of nature, paralysis of muscles of respiration, serous apoplexy, effusion on brain, atony of the stomach, decay, exhaustion, &c. Some of these are surely not very complimentary to medical perspicuity and diagnosis.

Upon another occasion we trust that we shall be enabled to give the particulars of the deaths of medical practitioners in Scotland and Ireland, as well as of those who die in the services and abroad.

# Medical Annotations.

"Ne quid nimis."

## THE ELEMENT OF PHYSIC IN MEDICAL PRACTICE.

THE progress of true medical science has greatly qualified our estimate of the value of mere drugs in the treatment of disease. It has shown that in medicine, as in politics, the best course is often that of non-intervention. The sore that used to be treated with a mysterious unguent composed of twenty ingredients heals under a piece of moist lint; and the pneumonia that used to be attacked with heroic violence gets well in less time under gentle doses of antimony and kindly allowances of unstimulating food. And all this without any detraction from the importance of the physician. The statesman who preserves the influence of his country, at the same time that he husbands its resources, is more worthy of public admiration than his rival who would attain no more than the same result by even successful wars. It is the same with the physician. The sooner he can cure his patient, and the less the expenditure of treasure—be it blood, or only mucus or serum—with which he can effect this object, the better. The more painless or even pleasant he can make his treatment, the more he can divest it of a "perturbative" character, the better is it and the greater is he. It is the growing characteristic of advancing therapeutics to watch the natural course of maladies respectfully, to regard pathological processes as only modifications of physiological ones, and to see in the worst forms of disease "an effort of nature to throw off the morbific matter and thus cure the patient." Medical men never talked so modestly about "curing" disease as now, and certainly they never did so much in furtherance of this object. The number of specifics becomes less rather than greater. We have stumbled upon something that cures ague—nobody knows how; and most of us still believe that mercury has some strange power over the venereal poison. But even quinine often fails, and the uses of mercury are becoming more circumscribed rather than extending. No sound man is very sanguine in his expectations of specifics turning up for every ailment, though every day is showing the value of measures founded on a rational study of the body and its diseases. Witness, for example, the use of alkalies in rheumatic fever, and of acids in fevers of the typhoid class. How simple is the idea of our duty! In the one case half an ounce of alkali, and in the other a quarter of an ounce of mineral acid, would go far to exhaust our duty as regards mere drugs.

The element of physic in medical practice becomes constantly more simple. Our drugs are fewer and less complicated. Of course it is all otherwise in pseudo-medicine. Here "specifics" are as rank as weeds. Here little account is taken of natural provisions for the cure of disease. Here physic is everything, and nature and the physician are unimportant. Given the symptoms of a disease and a book of "testings," every old lady thinks herself as competent a physician as Hahnemann. Every disease and symptom of disease has its corresponding remedy, or rather we should say two remedies, for it will nearly always be found that homœopathic patients take two medicines, in equal doses and with equal frequency. Homœopathy abounds in principles. Its great principle is that of "specifics"—that certain medicines have the most definite and designed relation to certain ailments—are *the* thing and the *only* thing. Then there is what we may call the alternating principle, in virtue of which two medicines—each, we suppose, a specific!—are so much better than one. Upon these two principles the enlightened patron of homœopathy is made the receptacle of a most unprincipled amount of physic.

We conclude by impressing upon our brethren, who are studying Medicine in the light of reason and science, the urgency of the duty that devolves upon them of so using the element of physic in medical practice as to make more and more apparent the great gulf that is fixed between their practice and the rival quackeries of the day. Let them use medicine so that the most undiscerning patient will perceive that it is only one of many means to an end, auxiliary only to great provisions in the body itself, and for the most part acting, not mysteriously, like quinine, but sensibly or chemically. Let the form of their drugs be unpretentious and inexpensive, so that whatever the cost to the patient may be, he may understand that he pays, not for physic, but for the attention, the skill, and the judgment of the physician.

## INFECTIOUS DISEASE IN PUBLIC CARRIAGES.

THE necessity which we have long urged for regulating the removal in hired or public carriages of persons labouring under infectious diseases in the Metropolis has been palpably demonstrated by recent correspondence. Dr. Brady has usefully availed himself of the public impression thus produced to bring under the consideration of the Legislature a measure designed to amend present deficiencies. The general scope of the Bill, which is backed by the name of Sir Fitzroy Kelly in addition to his own, is excellent. Some of the clauses are, however, of a character to require alteration before they could be incorporated with advantage among enacted laws. It requires, judiciously enough, that proper carriages be provided for the purpose by all local authorities, and kept in conveniently ac-

cessible places, the authorities to have power to fix rates for the conveyance of persons able to pay. A penalty not exceeding ten pounds is proposed for using a hackney carriage for the removal of any person suffering from infectious or contagious disease. The Bill also proposes that it shall not be necessary to prove the disease under which such person was suffering; that it shall be sufficient to show that the person hiring had reason to believe that it was infectious and contagious; and, finally, that in any proceeding under the Act, the word "infectious" shall include "contagious," and every contagious disease shall be deemed infectious for the purpose of the Act. These latter propositions are clearly preposterous and impracticable. The effect would be that any person labouring under a disease such as gonorrhœa, chancre, or any form of primary or even of secondary syphilitic disorder, would be subject to this heavy penalty. The fact is, that it is essential to enumerate the diseases which are held in view; and a little consideration will show that they are few in number. Probably the only diseases which need to be included among those which should exclude the sufferers from hiring a public carriage are small-pox, scarlatina, typhus, and measles. The Bill in its present form is not susceptible of practical working, and requires a monstrous assumption. The propriety of petitioning in its favour was under the consideration of the College of Physicians early this week, and some of these difficulties were felt by those present to stand in the way of affirmative action. But a resolution was passed, highly approving of the general scope of the measure, and remitting to the Council the consideration of the details. Dr. Brady deserves great credit for bringing the measure into the House, and, duly modified, it will undoubtedly conduce to the public safety.

Since the above was written, these objections have been felt so powerfully in the House, that the Bill has been withdrawn for the present.

## INDIAN MEDICAL SERVICE.

THE medical officers of the Indian Army, smarting under injustice still more flagrant than that which renders the army medical service odious and intolerable in this country, will find, we fear, but cold comfort in the statement of Sir Charles Wood in the House of Commons this week. Mr. R. Mills asked the Secretary for India when the details for the amalgamation of the medical service of the late East India Company with that of the Royal army were likely to be promulgated. Sir C. Wood said the amalgamation in question was a very complicated and difficult matter, and must be attended with considerable expense. A plan had been sent out to India some time ago, but a totally different one was suggested by the Indian Government in return. The latter plan had been submitted to the judgment of military and medical men connected with India who happened to be in this country, and upon the whole they approved it. It had been since sent to the highest military authorities here, and was now under consideration, but he was not in a position to say when the details would be promulgated. He hoped they would be soon.

This heart-sickening delay has been endured now for three years. The Warrant is not recognised in India. The medical officers are snubbed, their pay is kept down, their emoluments shaved off, and their social position depreciated; and after the handying backwards and forwards of official plans of an amalgamation, the Indian Secretary hopes that the details will be soon promulgated. Unhappily the sweepings of the schools can sometimes, under the pressure of promises and invitations, be got together at sham competitive examinations, just in time to compensate for a dearth of candidates, and apparently the head of the Army Medical Department has the conscience to countenance such a collection of pressed men rather than boldly to face and strongly to announce the extremity of despair into which his department has been brought by the ill-judged oppression of the military chieftains.

## TESTS OF LIVE-BIRTH.

THE difficulty of determining whether an infant has been born alive in cases of alleged infanticide are commonly considerable and not unfrequently invincible. But the attempt unduly to exaggerate them, or to obscure the value of positive evidence in such cases, is not one which can be regarded with tranquil satisfaction. The facilities for infanticide, and the rarity of conviction for that oft-recurring offence, have for some time constituted a scandal to society; and the anomalies of the law are already so antagonistic to social progress in this matter, that it is of public importance to impress upon magistrates and medical witnesses the desirability of bringing together all the points which can throw light upon the dubious problem, rather than to disparage any of these helps to the truth.

It is to be regretted that the sitting magistrate at Worship-street should this week have passed upon the medical witness, Dr. Griffiths, depreciatory opinion of the value of the various tests of live-birth, in which Dr. Griffiths somewhat too readily concurred. Part of the evidence referred to ran thus:—

"Dr. GRIFFITHS.—I examined the dead body of a male infant on the 4th inst. There was the impress of a finger and thumb upon the throat, and the deep mark of a double ligature round it. Marks of the former might have been caused by an attempt at self-delivery. The lungs had been inflated. Strangulation appeared to have been the cause of death, but that might have happened before the entire birth. There is not any decided test of an infant having been born alive, excepting the lungs, as mentioned.

"MAGISTRATE.—And that test is almost exploded.

"Cross-examined: The bruises on the side of the windpipe might have been occasioned by self-delivery; they certainly are not sufficient to account for death. The body, I consider, had been born about a week.

"Dr. Atkins confirmed this evidence."

We are not acquainted with any sufficient ground for the statement that the evidence of live-birth from respiration is exploded, nor should the value of evidence from marks of violence, from the state of the umbilical cord, and from circulatory changes, be so summarily depreciated.

## THE LATE COMMISSION ON CHOLERA IN INDIA.

WHATEVER may have been the causes which prevented the publication of the Report of the late Commission on Cholera in India, some explanation is due to the public. We direct attention to the letter of our well-informed correspondent "Inquirer," at p. 339. The fact that differences of opinion exist amongst members of the Commission is one of the most cogent reasons that can be urged for the publication of their report. That report, it is reasonable to infer, would contain a certain number of reliable facts. The conclusions to be drawn from them might not be agreed to by all, but it cannot be denied that they would afford valuable materials for consideration, and probably for the establishment of more efficient means than we now possess for the prevention and cure of the most formidable scourge which afflicts our fellow-subjects in India. The whole system of supervision in the medical department of our Indian empire is open to grave animadversion; and if it were necessary to substantiate the truth of this in one most important particular, the manner in which the report of the late Commission has been treated by the authorities would be amply sufficient.

## SIGNS OF CHILDBIRTH.

THE case of child-stealing which was investigated this week at Salisbury, and caused considerable excitement in the country, was complicated by a serious and very ill-grounded charge against Mr. Samuel Pyle, of Amesbury, who had been deluded by the woman accused, and was foolishly included in a summons to show cause why he should not be charged as an accessory. He showed very good cause indeed. This artful and

extraordinary woman, having stolen an infant, represented herself as just confined. Mr. Pyle was called to her. She had for some time before simulated *grossesse*, and he found her in bed with the infant. He was sufficiently unsuspecting to be satisfied with the answers she gave to his questions. She had got up her tale very well, and answered properly the questions put to her as to milk, menstruation, &c. Certain *débris* resulting from an accouchement were casually shown to him, and he carelessly concluded that all was right. Of course more rigid examination by surgeons called in under circumstances exciting suspicion easily detected the imposture of which he was a victim. But the imputations which it was attempted to found upon the easy credulity of Mr. Pyle were palpably groundless. It was unfortunate that he did not proceed with care, and require the evidence of his eyes to confirm some part of the tale told to him. But there the fault ended; and the charge made, although satisfactorily met and summarily dismissed, was of an unpleasant character, and ought not, we think, to have been brought forward.

## MEDICAL SOCIETY OF LONDON.

ABSTRACT OF THE LETTSOMIAN LECTURES ON THE SURGICAL DISEASES OF CHILDREN, BY T. BRYANT, ESQ., F.R.C.S.

MR. BRYANT, after making allusion to the fact of the Council having selected the subject for their surgical course, passed on to observe that he should more particularly occupy the attention of the Fellows of the Society by pointing out the differences which are to be found in practice between the surgical affections of early and adult life, having previously glanced at the differences in the physiology of the two classes, and shown how the pathological processes are modified by such conditions. In carrying out these intentions, he pointed out that the grand physiological distinction between the two classes rested upon the fact, that in the child the vital forces are directed mainly for its growth and development, whilst in the adult they are chiefly employed for the maintenance of man's physical structure. He then proceeded to explain how this physiological distinction modifies disease, and demonstrated the process by which the abnormal developments of infancy are generally produced.

The greater activity of infantile diseases was a second point of difference to which allusion was made, and the lecturer remarked that this activity of disease appeared to be in direct proportion to the activity of the vital processes going on in a part; that in highly vascular organs, morbid processes progressed more rapidly than they did in others less favoured; and that in proportion to the extent of action going on in a part, is the development of morbid phenomena manifested when once originated. He then proceeded to the consideration of some of the conditions which are the result of some defective power either in the growth or development of the infant structure, the subject of hare-lip claiming his first attention.

*Hare-lip.*—Having explained how a hare-lip, with or without a fissure of the hard and soft palate, was produced, the lecturer demonstrated from the analysis of cases that half the examples which come under notice are of a simple and uncomplicated character, and that in the remaining moiety some deformity of the mouth and palate coexist; and also that a fissure of both hard and soft palate is present in one-third of the whole number of cases. He explained how this affection must be confined to the upper lip, and how the fissure must always be on one side of the median line, and not in it. He proved that in two-thirds of these cases the deformity was found in the left side of the body, supporting the generally received opinion that deformities, as a whole, are most common in that position. He then proceeded to show that in the simplest cases of hare-lip three-fifths of the examples are found in males and two-fifths in females; but that in the complicated examples four-fifths occur in males and only one-fifth in females; and that double hare-lip is most common in boys.

The subject of treatment next claimed attention; and from the facts brought forward it appeared tolerably certain that in the majority of cases the operation should not be undertaken till after the third month of life, unless, from the imperfection of the mouth forming an insuperable difficulty to the child's sucking, an operation is called for to preserve life at an earlier period. The objects to be gained by the operation were then laid down; and a preference was given, over all others, to the plan of Malgaigne, of using the labial portions of integument to fill in the marginal gap which so often exists. The lecturer recommended that in a double hare-lip both fissures should be simultaneously treated; and declared the use of pins in the after-treatment to be absolutely unnecessary, the interrupted suture answering every purpose. Other details for special observance were also given.

The subject of *malformations of the anus and lower bowel* occupied the remaining portion of the lecture. Complimentary reference was made to Mr. Curling's exhaustive paper upon this subject in the forty-third volume of the "Transactions of the Medical and Chirurgical Society." These malformations were all grouped under three divisions: 1st, cases in which no anus exists; 2nd, cases in which an anus is present communicating with an imperforate bowel; and 3rd, cases in which the bowel opens into the vagina, urethra, or other abnormal position. The lecturer remarked that it would not be difficult for the surgeon to decide upon the practice which should be followed in any of these cases, if it were possible to determine with accuracy by any examination the true position of the bowel the terminal end of which was malformed. In the first two divisions of cases he advised an exploratory operation—though this was to be conducted with great care—in the position of the anus, or at the extremity of the cul-de-sac. He condemned in strong language the blind plunging of a large trocar and canula into the pelvis with the vain hope of puncturing the distended and obstructed intestine, and proved from past experience the fatal effects of such a practice. If success follow this exploratory operation, the treatment of the case is not complete, for subsequent contraction is certain to take place unless constant dilatation of the part be persevered with. The propriety of opening the bowel by some other operation, should these means fail, was then discussed. Colotomy in the loin, or Amussat's operation, was proved to be inapplicable—firstly, from the difficulties and uncertainty of finding the colon in this position, and, secondly, from the bad success which had hitherto followed its adoption. The inguinal or Littrè's operation was then considered, and the evidence which was adduced was declared to be entirely in its favour. It was more certain in its end, and more successful in its results, than the lumbar operation; and it was consequently advised that in the cases in which a careful exploratory operation in the ano-perineal region had failed to afford relief, such was to be obtained with some confidence by its performance. The next question which was brought forward related to the groin in which the operation should be performed. The left side had hitherto been always selected, as originally suggested; but, from careful reflection and consideration of the facts which the past records of cases had supplied, the lecturer had come to the conclusion that the right groin was the better; for the large intestine would to a certainty be found in the right groin, whilst in the left this really does not exist. The difficulties of either operation are the same, and the benefits also are equal. An interesting case was then cited in which this practice was carried out, with others illustrating the different points in the lecture, but space will not allow of their quotation.

THE ROYAL LONDON OPHTHALMIC HOSPITAL AND THE RAILWAY.—Lord Shaftesbury presented a petition from the Governors of this Hospital, on the 12th inst., representing

"That the Royal London Ophthalmic Hospital is the largest institution for the treatment of eye diseases in this country, and relieves upwards of 15,000 cases per annum, many of which require the most delicate operations for their cure.

"That it is indispensable that the hospital be situated in an airy, quiet, and light locality; and the contiguity of a railroad nineteen feet above the surface of the ground, with its accompaniments of smoke, noise, and piercing sounds of the whistle, will be highly injurious to the successful treatment of patients during and after an operation.

"That the proposed railroad is in close contiguity to the hospital, and the destruction of Finsbury-circus and its neighbourhood would deprive the patients of a place of exercise during their state of convalescence, and destroy a healthy area, covered with vegetation, in immediate proximity to the hospital."

# DESCRIPTIONS
OF
# NEW REMEDIES
## INTRODUCED INTO THE PRACTICE OF MEDICINE,
## WITH THEIR THERAPEUTICAL EFFECTS.

### No. XIII.

IT is a very comprehensible and even excusable objection to new remedies, made by pharmaceutists, that, as many will be recommended on insufficient evidence, they incur some hazard of loading their shelves with worthless and unsalable substances, if they attempt to supply the demands of experimenters. There is no help for this; but we would remind them that no science can be allowed to stand still to avoid trade losses. It is incident to every new discovery in science or the arts, that some disturbance of commerce should follow, and some old interest suffer. It is certainly to some extent an evil to multiply the number of drugs; and it is difficult, if not impossible, to abandon anything which once obtains a footing in professional use. No objection, however, on this side can outweigh the importance of a new agent,—a power over some vital function or diseased action not existing in our familiar remedies. And hence those pharmaceutists who keep in the van of therapeutic improvement, and fairly supply us with anything and everything we need as practitioners, whatever may be its source, will assuredly gain a march on their more cautious competitors.

The ready adoption of the new remedies described in the pages of THE LANCET evinces the recognition of wants in practice; and we rejoice to say that in many instances the claims of peculiar and highly valuable remedial properties made in their behalf have been found just. They have taken a place in our materia medica which promises to be permanent.

What we need is testimony, either favourable or adverse, from practical observers, to enable us fairly to discriminate,—to retain the useful and reject the useless. It is but a secondary consideration indeed, but still it has some weight, that in many cases there is great economy in using the new in preference to the old remedies; and we think that when the present troubled state of the American continent ceases, we shall derive many drugs from thence for daily use.

#### PHYTOLACCA DECANDRA (POKE).

This plant, indigenous to North America, and very abundant, holds a place in the secondary list of the national Pharmacopœia. The root and leaves are officinal. The dried root, as it finds its way into this country, is in large thin slices, much wrinkled, exhibiting concentric rings of a yellowish-white colour, with darker layers. It abounds with potash, yielding no less than forty per cent. when incinerated. The acid with which this alkali is combined in the fresh root has not been determined, although it contains a portion of tannic acid. It has little taste, but is somewhat acrid, and has no smell, it yields its properties to boiling water and to proof spirits.

Poke in large doses is purgative, emetic, and narcotic, but is not desirable for these properties. In smaller doses it excites all the glandular system, and acts as a powerful alterative. Its use is in chronic rheumatism, scaly skin diseases, scrofula, and pseudo-syphilitic affections. It is said to relieve the pain of certain cases of rheumatism and of the bones and joints more readily than opium or any other narcotic, and to be especially valuable in rheumatic inflammation of the sclerotic coat of the eye. For these purposes the following tincture is the best preparation:—Rad. phytollacca contus., two ounces; spt. vin. ten., sixteen ounces. Macerate for fourteen days and filter; or prepare by displacement. The dose is half a drachm to one drachm.

The similarity of its properties has led to its being combined with cimicifuga racemosa, and, as alleged, with great advantage. The decoction, made by boiling four ounces in a quart of water for a quarter of an hour, is recommended as a local application in many skin diseases. It is also used in ointment—sixty grains of the root, finely powdered, to an ounce of lard—in hæmorrhoids and tinea capitis.

A concentrated preparation, designated

#### PHYTOLLACCIN,

is also imported. The dose is one-eighth to one-fourth of a grain, in the same cases, but is especially recommended in scrofula, pseudo syphilis, &c. We have no information respecting the nature or mode of preparation of *phytollaccin*, but believe it resembles the concentrated preparations already described.

As an adjunct to the actæa in the treatment of obscure painful affections regarded as rheumatic the phytollaccin may be found advantageous, as no fact is better known than the apparent waywardness of such painful disorders, sometimes yielding readily, and sometimes resisting obstinately all our ordinary remedies.

#### RUMACIN.

This is another of the concentrated American remedies which are now imported into this country and offered for our use. It purports to be the active principle of the root of a species of *Dock*, but of which is not stated. Several species have always been considered to possess some remedial value. Two are admitted into the secondary list of the American Pharmacopœia—Rumex Britannica and Rumex obtusifolius; but some physicians profess to find the Rumex crispus by far the most valuable. The use of the various species of dock in this country has hitherto had no definite result. Whether the properties of the plant as found in the concentrated preparation before us will be more useful remains to be seen. It is as an alterative, antiscorbutic, and antiscrofulous remedy that it is commended. The dose is five or six grains.

## CHEMICAL PRODUCTS & PHARMACEUTICAL PREPARATIONS.

Mr. Brewer, of Liverpool-street, Bishopsgate, has sent us a solution of "peracetate of iron and quinine." The peracetate of iron is highly commended as an iron salt by Dr. Neligan. Its combination with quinine is not new. Mr. Brewer has attempted too concentrated a preparation. After standing a few days the quinine precipitates. Four grains of quinine to a drachm will not be permanent; a single grain and the addition of a few drops of spirits of wine will answer better.

#### RENNET WINE.

Mr. Hogg, of Albion-place, Hyde-park, has prepared rennet wine according to the formula of Dr. Ellis, of Dublin. The sample he has sent us is of the proper strength. A drachm coagulates half a pint of milk, and hence may be prescribed with confidence. We cannot, however, subscribe to Dr. Ellis's complaint when he says—"The substance ordinarily sold as pepsine is perfectly inert. It will not coagulate milk, and has no digestive action whatever on animal substances." The pepsine prepared from the pig's stomach, and in use by London practitioners, is a very active substance. A single grain with a few drops of hydrochloric acid and water will dissolve a hundred grains of coagulated albumen.

This pepsine is soluble in wine; but if Dr. Ellis's wine is preferred, his formula is as follows:—

Take the stomach of a calf fresh from the butcher, cut off about three or four inches of the upper or cardiac extremity, which, containing few glandular follicles, may be thrown away. Slit up the stomach longitudinally, wipe it gently with a dry napkin, taking care to remove as little of the clean mucus as possible. Then cut it into small pieces (the smaller the better), and put all into a common wine bottle. Fill up the bottle with good sherry, and let it remain corked for three weeks. At the end of this time it is fit for use. Dose, a drachm in water after meals.

#### DRAGÉES DIGESTIVES DE PEPSINE.

That pepsine is one of the most important and distinctive of the constituents of the gastric fluid, it being by its means that the solution of the azotized or albuminous constituents of the food is chiefly effected, is certain.

The value of pepsine as an aid to digestion having been determined, it next became of importance to devise a method whereby it might be isolated and produced in a pure state, an object accomplished by Professor Wasmann.

But even when separated, pepsine very readily became decomposed and spoiled, and therefore it was also necessary that means should be adopted for preserving it unaltered.

Both these objects appear to be accomplished in the Dragées Digestives de Pepsine of M. Perens, prepared according to the formula of M. Berthé.

Of the medicinal value of pepsine not a doubt can be entertained. Disappointment has, however, been frequently expressed that in many cases its administration has not been followed by all the good effects anticipated. Of this circumstance two explanations may be offered: first, that the pepsine used has not been in a fresh and active condition; and, second, that it is administered in all stomach affections, to many of which it is wholly unsuited, and in which it would be irrational to anticipate beneficial results.

The cases in which this remedy is indicated, and from which benefit frequently results, are those attended by slow and difficult digestion, arising from deficiency of the gastric juice. We believe that pepsine, rightly used, is an invaluable remedy, and that its discovery and isolation mark an important era in the treatment of dyspepsia.

### THE BLISTERING AND EPISPASTIC PAPERS OF M. ALBESPEYRE.

These consist of—an epispastic paper, used for dressing blisters; a dulcifying paper, used for issues, causing neither smell nor pain; and blisters formed of an adhesive cloth without a plaster.

The epispastic paper for dressing blisters is prepared of four degrees of strength, under the designation of No. 1 feeble, No. 1, No. 2, and No. 3. No. 1 feeble, having a small quantity of salve upon it, possesses the least strength, and is suitable as a dressing for persons of very irritable temperament, and for children. No. 1 has rather more salve spread upon it, and is adapted for patients whose blisters have risen well. No. 2 is employed for those whose blisters do not draw sufficiently, and require stimulating. Whilst No. 3 possesses a still stronger drawing power, and is used only in cases where the blister has a tendency to dry up.

When we state that this paper has been in use for the last thirty years in France and many other countries, and has lately been employed in England with great advantage, enough is said to urge an extended trial of its good qualities. It keeps up an abundant and uniform discharge, without pain or heat; it prevents the formation of false membranes, or of white scurf or epithelium, which hinders the discharge; it produces no irritation of the urinary passages, and it causes no disagreeable smell. The paper, being thin, soft, and pliable, readily adheres to the surface of the blister, and never gets out of position.

The blisters in the form of adhesive cloth are an elegant preparation; they readily adhere to the skin, and produce vesication in a few hours (twelve at the furthest); and, if necessary, the same piece applied four or five times always produces the blistering effect.

In the cases in which these preparations have been tried in some of our hospitals and elsewhere, we learn that they have given great satisfaction from their cleanliness, and more especially their freedom from the irritation and discomfort of the blisters as ordinarily employed.

## Correspondence.

"Audi alteram partem."

### THE WALDITCH MURDER.

*To the Editor of* THE LANCET.

SIR,—I am much gratified by your remarks in THE LANCET of last week regarding the poor unfortunate man Chas. Fooks, now under sentence of death in Dorchester Jail for the murder of his cousin, Joseph Stone; and if ever there was a case to which Royal clemency might be extended in mitigating the extreme penalty of the law, with consistency and in harmony with all the facts taken together, I feel assured that case is Fooks's—an ignorant (not wholly illiterate) man—the subject of delusions the most absurd, and without sufficient moral self-control either to reason himself out of his delusions or restrain his resentment of imaginary shafts directed against him. I have been his chief medical attendant for nearly seventeen years, and therefore must know something of his mental capacity as well as of his bodily ailments. I subjoin a short sketch, which may perhaps assist you in following up the philanthropic step you have taken in trying to have the Royal prerogative of the Crown extended towards him. While the marriage of H. R. H. the Prince of Wales was being celebrated, at the same hour this poor victim of a homicidal impulse was on his trial; and the present might be urged as a befitting season for extending that mercy for which we pray.

I first saw Charles Fooks in May, 1846. He was brought to me by the late Wm. Devenish, Esq., under whom the family rented some land; and the history I then received of him was that he had been a long time out of health, and at length shut himself up in his bedroom, lined the door and windows with quilts and blankets to keep out currents of air, had his food carried to him in bed, and, except while taking it, kept his head under the bedclothes. From this position he was taken by Mr. Devenish and brought to me. He looked pale, felt languid, and thought himself in a very bad state—not fit, he said, to be out of his bed, and that no one but Mr. Devenish could have induced him to leave it; but that he was so kind, and such a good friend to his family, he could not refuse to comply with any request, though he thought no medical man could cure him. I carefully examined him without discovering any organic lesion. I entered him as a dyspeptic hypochondriac, and treated him accordingly.

One circumstance that occurred during our interview is worthy of note as showing the state of his nervous system then—viz., when I ordered him a shower-bath daily as an essential remedy in his treatment, he jumped to his feet, declaring that no man could induce him to have a shower-bath, for he was sure it would kill him! I got on my legs also, and quietly taking hold of his coat-breast, said in a stern manner: "Sir, if I order you to walk across the road in front of where you are now standing, and have a plunge-bath in that arbour as part of your cure, you must do it;" and I then walked out, leaving him and Mr. Devenish alone, who afterwards told me he sat down rather amazed, saying, "I see that is a most determined doctor; it wont do to trifle wi' he!"

The next day when I called, I found the shower-bath in his room, and had not the slightest difficulty in commanding obedience to all rules laid down for his observance. He was well enough to return home in between five and six weeks. I have seen him professionally from time to time ever since. On looking over my notes, I find his visits to me averaged about two every year. He also wrote me occasionally when he could not come to Weymouth; sometimes the writing appeared in the hand of a female, but signed "Chas. Fooks." All his letters were couched nearly in the same language, of which the following is a specimen:—

"Dear Sir,—I am terrible bad in my inside. Please send me something to go through me. It comes up very sour dark bile. I know I am bilious. My head is bad, but better after being sick, only I can get nothing to go through me as it ought. Please, Sir, write soon.—I am, &c.,

CHAS. FOOKS."

He complained nearly always of the same train of feelings—all the symptoms, in fact, of a confirmed dyspeptic. At one time he would fancy or feel himself filled with flatus, "ready to burst." Again he would complain of a coldness in his stomach, and no action whatever of the bowels. At another time he would tell me his "inside was in a burning fever, all dried up." Then he would call my attention to how thin he had become; that his food did him no good; he was "all gone to nothing."

During most of my interviews with him he complained of excessive weakness, and said he was often obliged to go in from his work in the fields, and lie down for an hour or two. I was impressed with the idea that he was a large eater, and often took more than the stomach could digest, and that his lowness of spirits and other morbid feelings on which he dwelt arose partly from this error in diet, though he would never admit that he took food in large quantities. Just like drunkards, who believe their illness may arise from any cause but the right one; in fact, drunkards will hardly ever admit that drink has anything whatever to do with their illness, though it may be from drink. Poor Fooks was not addicted to drink, but had all the symptoms which generally accompany dyspepsia—viz., indigestion, heartburn, pain of stomach and bowels, eructations with much flatulence, confined bowels, and sometimes vomiting. He often complained of his head and a sense of weight in his chest, all of which I referred to the same cause. These symptoms may, and often do, continue for years, nay throughout a man's life, without any very great aggravation of the morbid sensations; while, on the other hand, they sometimes lead (especially in a nervous and highly irritable temperament such as Fooks's is) to a morbid state of mind, in which everything seems going wrong, and a distrust is acquired in those in whom confidence was formerly placed; imaginary evils spring up, and fancies the most absurd arise in the bewildered

brain, which sometimes becomes sympathetically affected, and the patient often complains (as did Fooks) of headache, dimness of sight, noises in the ears with impaired hearing, loss of memory with confusion of thought, and incapacity of fixed attention for any length of time on any given subject.

There was a general irritability shown by Fooks on the last occasion on which he visited me (a month or five weeks before the fatal occurrence), an impatient wish expressed that the devil, or whatever it was that was inside of him, was driven out by strong medicines, for he would rather be dead than live in such torture. I told him it was very wrong to express himself in such a way; that he had much to be thankful for; he was placed beyond the reach of poverty; he had no encumbrances, and no one to control his movements or curtail his pleasures. "You be right, sir," he replied; "but I am not so well off as I was some years ago. I can't look after things as I ought. My head is bad, and I am so weak I'm fit for nothing, and sometimes don't know what I be about. Can mind nothing—all confusion—and can't settle to anything as I used to do; but I know you will set me right, as you always have done. I think I want stronger medicine than ever to carry it off!" Now it is believed and maintained by some, eminent in the medical profession, that functional disturbance of the brain, producing morbid ideas (such as were apparent in Fooks), the result of long-continued disorder of the digestive organs, may pass into a state of organic change of brain substance. I do not think for a moment that such a change has taken place in Fooks's brain, but rather that a state of irritability of the nervous system frequently manifested itself in his case, and this, from reflex action on the brain, led to the darkest thoughts and forebodings and despondency. During a paroxysm of this nature all imaginable evils and their causes are passed in review before this morbid mental vision, and in a frenzied fit the will resolves to get rid of the imaginary offender, and then to take his own life: and the body thus obeys the command of a morbid mind or will which it cannot resist. Had Fooks's victim not come in his way until this frenzied homicidal fit had passed over, it is most probable the fatal act would not have been committed; and that the deed was the act of a madman—morally mad for the time being—I have not the slightest doubt, this conclusion being strengthened by the attempt on his own life afterwards, which if he had succeeded in taking away, there can be no doubt that the verdict of a coroner's jury would have been "Temporary insanity."

I am, Sir, your obedient servant,

Weymouth, March, 1863. WM. SMITH, M.D.

## CHOLERA IN INDIA, AND THE LATE CALCUTTA CHOLERA COMMISSION.

*To the Editor of* THE LANCET.

SIR,—Under the head of "Parliamentary Intelligence" in THE LANCET of the 14th inst. a paragraph appears in connexion with the above-named subject, which should not be allowed to pass without comment.

It must be known to most of your readers that so long ago as the summer of 1861, a Commission, with Dr. M'Lelland at its head, was appointed at Calcutta to inquire into the great epidemic of cholera which had just committed such ravages in the Punjab and in the Valley of the Ganges, and to report upon the subject generally.

It will be seen from the paragraph to which I refer that on Friday, the 6th of March last, Sir W. Miles asked the Secretary for India if he had any objection to lay on the table the Report of the Commission, and any correspondence that had taken place between the Commission and the home authorities in reference to it. The reply was that no such Report or correspondence had been received.

This reply is no doubt true, but at the same time it is not easy to explain. In the first place, it is in direct contradiction to a statement which appeared in your columns in November last, to the effect that the Report had been received, and that, after being severely criticized by the medical advisers of the Government, it had been sent back to the Commission for revision and reconsideration. That both these statements cannot be true is clear enough.

What makes the whole thing the more strange is, that, if the public prints speak truly, the Commission itself has long ceased to exist. Some five or six months ago, it was announced in *The Times* that the secretary to the Commission had left India, and was coming to England by way of Persia. Mr. John Strachey, a leading member of it, was gazetted to a new appointment last autumn, and is understood to have left Calcutta for the north-west of India some time ago, in order to enter upon his new duties.

In India great dissatisfaction has been repeatedly expressed at the non-appearance of the Report. In an article which appeared in the *Homeward Mail* in October or November last, the delay is ascribed to an irreconcilable difference of opinion amongst the members as to the fundamental points of their inquiry. But this, surely, is no valid excuse for the non-performance of the duty assigned to them. In the investigation of problems so difficult as that which concerns the propagation of cholera, it seldom happens that a commission composed of many members is unanimous in its conclusions. The universal practice under such circumstances is, that a report is drawn up containing the evidence, and embodying the views of the majority, while those of the dissentients are given in an appendix. At any rate, if there be some knotty point on which these gentlemen cannot agree, nothing would be lost by making it public.

Whatever the real facts may be, it is evident that in the working of this Commission there is a screw loose somewhere. As the public will have to pay the commissioners a large sum, it is at least entitled to the fruit of their labours. After what has transpired on the subject, it is high time that we should know whether the Report is to be forthcoming or not, and if not, what has caused so much time and money and the labour of so many eminent men to be spent in vain.

I am, Sir, yours &c., INQUIRER.

March 14th, 1863.

## VALUE OF ALKALIES IN RHEUMATISM.

*To the Editor of* THE LANCET.

SIR,—I beg to thank your correspondent "M.D., Retrospicions" for directing my attention to the paper by Dr. Furnivall in THE LANCET for 1844, respecting the value of alkalies in rheumatism. It is thoroughly to the point, and although it does not enter into the details of treatment, it foreshadows the results which were more fully elaborated in my work on Rheumatism.

Your correspondent seems to imply that, whilst recommending the use of alkalies, I ought to have made mention of the labours of those who in a greater or less degree have been instrumental in bringing the value of those remedies under the notice of the profession. In my work on Rheumatism I have done so, and have specially referred to the views of Dr. Wright of Birmingham, who is quoted by your correspondent. Dr. Furnivall's paper is not alluded to, for the reason that, until the appearance of the letter from your correspondent, I was not aware of its existence. But *clinical* lectures do not appear to me to be the proper channels for a discussion as to the share of different individuals in the introduction of various remedies. The subject-matter of such lectures should be strictly practical, and in close relation to the cases under consideration, and it has been my aim to exclude all other matters. Hence the omission of which your correspondent complains. If your correspondent will refer to my work on Rheumatism, he will find that I have not failed to "give honour where honour is due."

I am, Sir, your obedient servant,

Manchester-square, March, 1863. HENRY WM. FULLER, M.D.

## DR. HUGHES BENNETT'S LECTURES.

*To the Editor of* THE LANCET.

SIR,—Dr. Hughes Bennett, partly, I must admit, from my own indistinctness, has misunderstood my meaning. When I said that I was prepared to admit that the so-called molecules may arrange themselves in rows, I meant that they might accidentally come into contact and assume that arrangement, as they might any other form of grouping, definite or indefinite; not that from this they proceeded to grow together by a species of vital adhesion or coalescence, but that the production of vibrios is a consequence of the power each so-called molecule possesses of assuming the mode of linear segmentation.

These so-called molecules, are, I believe, either the results of a former segmentation, which have been deposited from the air, or the descendants of them, and, therefore, are minute subdivisions of cells, without, perhaps, any decidedly marked cell-wall, but certainly with an exterior possessing some degree of consistence, each capable, without any junction with its neighbour, of producing a fibril.

Each of these minute particles of vegetable matter (molecules) is certainly, to my mind, very different from those

minute particles or granules of matter which are found outside the more defined cells by which they are surrounded, or those which are formed in the coagulation of fibrin, and from those which may have arisen from the disintegration of old cells; and therefore it is that I consider the formation of "vibriones" as not illustrative of the "molecular theory."

The term "molecule" is the stumbling-block in these discussions on the origin of tissues. It is a term of size, not of quality. Size is next to nothing of itself. The quality and relations to surrounding influences are the essence. If, as we know, a large mass of cell-contents can coalesce with another, and vitality can proceed in the combined mass, then there is no difficulty in admitting a similar possibility on the part of masses so small as to be called "molecular;" but we should be incorrect (even should such be plainly certain), in this instance, to consider its "molecular" condition as having any important influence on the vital process of fusion. The aggregation or fusion of newly-formed granules is mechanically the same as conjugation of the contents of two large cells; but physiologically the conditions are very different, and cannot, it appears to me, be quoted as parallel instances.

I demur to the statement (THE LANCET, Feb. 21, 1863, p. 201), that the contents of a vegetable cell are a mass of molecules, from the fact that they are frequently perfectly homogeneous, and that to a considerable size, and were so from their earliest origin in the single molecule, which has never fused with others, but simply grows. It is frequently not till after the cell has attained some age and size that there is an attempt to show a so-called "molecular" state, which, however, is really not a molecular condition at all, but one stage of a species of free-cell formation which, under certain conditions, takes place, each one of the molecules being a small mass of homogeneous protoplasm capable of becoming a single cell. Hence these molecules in vegetable cell contents are the result, not of the aggregation of a number of molecules or granules into a definite body, but, on the contrary, of a division of an originally homogeneous mass into smaller masses, or "molecules" of vegetable protoplasm—a process quite opposite, appearing towards the end of cell-life, instead of at its commencement.

So that, whether Dr. Bennett, when he says that a vegetable cell is a mass of molecules, means to say that it so took its origin, then the, I believe, universal instances of the growth of the vegetable cell from a single small mass of homogeneous matter, however that may have originated, seems to clearly prove the contrary; or whether he means that its appearance as a complete cell is molecular or granular, then the certainty that a vegetable cell may have homogeneous cell-contents, without the slightest sign of molecules, appears to me to be also an answer to the contrary.

In reference to the other point alluded to in his reply to my statement as to the contractility of the uterus at other times than at the expulsion of the fœtus, and which Dr. Bennett, as regards its contractility in the unimpregnated state, regards as not yet recognised in physiology, I may refer him to the works of obstetric writers who have seen the behaviour of the uterus in conditions calling forth this latent action, and mention here, as easily obtained, Dr. West's "Diseases of Women," second edition, p. 267.

I am, Sir, your obedient servant,
J. BRAXTON HICKS, M.D. Lond., F.R.S.

Wellington-street, London-bridge, March, 1863.

## THE ARMY MEDICAL DEPARTMENT.

*To the Editor of* THE LANCET.

SIR,—Although the Fates have preserved me from sailing in the stream of the Medical Departments of either service, and have made me drop anchor in the dull routine of civil life, unvisited by the tempered breezes and tender mercies of Horse Guards or Director-Generals, I should be glad if you could satisfy my curiosity upon the following:—Does the Professor of Military Surgery at the Army School instruct his pupils in the art of "branding and tattooing;" or does this form a separate chair, occupied by a noble savage, himself a perfect specimen of the art, and brought home, as such, for the Natural History Museum?

I am told—but it can't be true, I think—that when a man marked with the letters D. and B. C., this is done by an hospital servant, under the superintendence and instruction of a medical officer! My informant was unable to state what was to be the size of these letters,—whether they were to be illuminated, adorned with flourishes, or furnished with any of the artificial aids of a decorative style of caligraphy. By the way, he seemed to take a good deal of umbrage at these questions, and either would not or could not point out why a medical officer—by a parity of reasoning—should not be called upon to superintend and instruct in the infliction of corporal punishment.

But probably the whole thing is a myth: otherwise let Doctors and Bad Characters avoid H.M.'s army.

I am, Sir, yours obediently,

March, 1863. VIRIDIS.

## THE MEDICAL PROFESSION AND LIFE ASSURANCE OFFICES.

*To the Editor of* THE LANCET.

My attention has been called to an article in THE LANCET of the 28th of last month, purporting to be a revised list of Life Assurance Offices which pay medical fees.

The name of the Friends' Provident Institution, Bradford, does not appear in the list, though we have for more than two years adopted the practice of paying such fees in all cases.

Our scale of payment is £1 1s. for assurances of £500 and upwards, and 10s. 6d. for those under that sum.

Yours respectfully,
JOSH. JOHN DYMOND, *Secretary.*

Friends' Provident Institution, Bradford, Yorkshire,
17th of 3rd month, 1863.

## MEDICAL HEALTH ASSURANCE OFFICES.

*To the Editor of* THE LANCET.

SIR,—In answer to your inquiries, allow me to name as a health office the Wesleyan and General Assurance Society, Moor-street, Birmingham. This Society (Wesleyan only in name and origin) provides for almost any sum named, either as payment in sickness, annuity at sixty-five, or at death. It has a claim also on the profession from the liberality of its payment for sick attendance.

I am, Sir, your obedient servant,
JOHN MANLEY, L.S.A.

West Bromwich, March, 1863.

## POOR-LAW MEDICAL REFORM.

*To the Editor of* THE LANCET.

SIR,—In your journal of the 14th inst. is a paragraph relating to cod-liver oil, which your correspondent from Bridgwater, I presume, states has been decided by the Poor-law Board to be a medicine. If your informant would kindly give a copy of the letter to the Poor-law Board, and a literal copy of their reply either privately to me, or through the pages of your journal, I shall feel obliged, as, from the evidence laid before the Select Committee of the House of Commons on this subject by Mr. Cane, an Inspector of the Poor-law Board, it appears the Board are willing to sanction its being found by the Guardians.

I am, Sir, your obedient servant,
RICHARD GRIFFIN.

12, Royal-terrace, Weymouth, March, 1863.

*Mr. Cane's Evidence* (*See Page* 51, *Second Report, Poor Relief*, 1862).

3893. Lord Edward Howard.] With regard to cod-liver oil, which is so valuable a specific not only for the cure of disease, but the prevention of death, in many cases, would that be a medical comfort, or would it be a medicine provided by the medical officer out of his salary?—I believe, strictly speaking, it has been considered that cod-liver oil is a medicine, and that therefore the medical officer would be bound to provide it; but whenever the guardians wish to provide it at their own expense, instead of at the expense of the medical officer, the Poor-law Board are quite willing to sanction their doing so.

3894. Is that understood generally by boards of guardians throughout the country?—I know no reason why it should not be understood. Many guardians have availed themselves of that permission, and do now supply cod-liver oil at their own expense, instead of requiring the medical officers to furnish it.

3895. It would be very proper, would it not, that such should be understood by all boards of guardians?—I think so. Cod liver oil is a new medicine, in fact, and when medical officers were appointed some time ago, it was hardly to be expected that they would have to provide it; it would hardly do to require them now to supply it without either an increase of salary or a payment for what is supplied; and then the guardians would provide it themselves in such a case.

3896. Do you not think it necessary to bring more prominently before boards of guardians the desirability of some satisfactory settlement of that question?—I think that if the guardians have any doubts as to their power of providing cod-liver oil, or if they should express their wish to do so to the Poor-law Board, there would be no difficulty in making some arrangement which would be satisfactory to themselves and to the medical officers in charge of the poor, so that cod liver oil might be supplied without any difficulty whatever.

## ETIOLOGY OF TYPHUS FEVER.

*To the Editor of* THE LANCET.

SIR,—At the present time, when it is unfortunately only too possible that there may be an outbreak of typhus fever among the distressed operatives of the North, great interest surely attaches to the remote cause of that disease. Now, this is a matter upon which our highest authorities are not agreed. Many very eminent physicians hold that typhus is actually *generated* by famine and overcrowding; while perhaps quite as many of equal celebrity maintain that it is only *fostered* thereby.

Surely which of these theories is true, is not an unimportant question; and I submit this letter to you in the hope that it may bring forth the experience of practical men on this question. In the familiar cases of infusoria and mushroom-spawn, we now know that neither is spontaneously generated; and yet we should be quite ignorant of the presence of their seeds (if I may be allowed the expression) in the air did we not provide fitting matter for them to be developed in, and then we find them.

May not this be the case with typhus fever? Small quantities of the morbid poison, so-called, may be universally diffused through the atmosphere, ready at any time to take root and burst forth when they find a congenial soil, such as the human body worn out and depressed by famine and bad air. When once set up, in whatever way, I believe very few doubt that the fever spreads by contagion in its fullest meaning.

The subject is full of interest, and, as I have before said, not, I think, without some practical importance.

I am, Sir, your obedient servant,

February, 1863. A LONDON PHYSICIAN.

## THE EFFECTS OF SMALL DOSES OF OPIUM.

*To the Editor of* THE LANCET.

SIR,—I have long known that, sometimes even in small doses, opium acts as a poison, and that on very rare occasions it produces an eruption on the skin; but I was not prepared for the extraordinary train of symptoms which followed the administration of not more than sixty minims of paregoric, at an interval of six hours, in half-drachm doses. The history of the case is simple enough, and ought, I think, to be generally known.

About the end of last year I was asked to see a young lady—the daughter of a medical gentleman—who was suffering from a rather severe attack of bronchitis. After a time, all the acute symptoms subsided, but she complained of a teasing cough, which did not permit her to sleep during the night. In addition to ordering the steam of hot water to be inhaled—which, to my mind, is of all expectorants by far the most effectual—I added to an eight-ounce mixture she had formerly been taking half an ounce of paregoric. At eight P.M. she took an ounce of the mixture, and again at two o'clock in the morning. The family becoming uneasy, I was sent for at an early hour, and, on examination, found the neck, face, arms, hands, and lower extremities (but not the trunk) covered with an eruption, in every respect so like that of scarlet fever, that I at once gave it as my opinion that she had somehow caught that disease—which, by the way, was prevailing at the time in the neighbourhood. She at once set me right, by declaring that she had done nothing of the kind, but that I had poisoned her by giving her some preparation of opium. It then flashed across my mind that months before she had communicated to me this fact, though I had forgotten all about it. As this was not the first time she had been poisoned with opium, or some of its preparations, I think I cannot do better than describe the effect it produces on her exactly in her own words:—

"In from four to five hours after taking a dose of opium, I become suddenly almost deprived of sight and hearing, and am then seized with shivering. These symptoms go off as soon as I get warm in bed, and a rash then makes its appearance on my face, arms, hands, neck, and lower extremities, causing a burning, pricking sensation. The effect is the same on my skin when opium is applied externally, and such medicines as hyoscyamus and hops act as a poison, though in a minor degree. On one occasion, two drops of laudanum produced a slight attack of this kind." This is all very strange, and not easily accounted for, but I can vouch for the faithfulness of the picture. I may just say that vomiting was troublesome for a few hours, but readily yielded to small doses of brandy-and-water.

Desquamation of the cuticle began, just as it does in scarlet fever, about the end of the fifth day, and, as in that disease, the cuticle separated from the limbs in the form of scurf, and in large flakes from the hands and feet. Nay more, the dropsy, which is the common sequela of scarlet fever, had to be guarded against, inasmuch as on one occasion she was threatened with anasarca. For reasons well known to you I cannot sign my name to this communication, but I have much pleasure in enclosing my card.

I am, Sir, your obedient servant,

Feb. 1863. S. S.

# Parliamentary Intelligence.

## HOUSE OF COMMONS.

MARCH 18, 1863.

Mr. BRADY, in moving the second reading of the Diseases Prevention (Metropolis) Bill, pointed out the great injury done to the public health by the present mode of conveying persons affected with contagious and infectious diseases to hospitals in public carriages, and urged that, as the existing law was inoperative, there was a necessity for further legislation upon the subject.

Mr. AYRTON urged the difficulties which lay in the way of such minute legislation, and suggested the withdrawal of the Bill.

Mr. GRIFFITH spoke in favour of reading the Bill a second time, so that it might be considered in committee.

Mr. HENLEY, after subjecting the Bill to a searching and occasionally amusing criticism, confessed that he could not see his way to an acceptance of it, but left it in the hands of the Government.

Sir G. GREY said he could not see that the Bill could be so altered in committee as to effect the object in view, and after adverting to some of the provisions of the Bill, recommended Mr. Brady to withdraw or postpone it.

## LANCASHIRE DISTRESS MEDICAL FUND.

A MEETING of the Committee of this Fund was held on the 12th March last. Present—Mr. Barwell, Mr. Kiallmark, Dr. Webster, Dr. Forbes Winslow, and Dr. Barnes. The balance-sheet showed a sum of £157 3s. 5d. in hand. The Chairman was empowered to issue sums amounting to £100, to be forwarded to Thomas Turner, Esq., of Manchester, Edward Meacham, Esq., of Cheetham, Hugh Mason, Esq., of Ashton-under-Lyne, (a member of the Manchester Central Committee,) Charles Sutcliffe, Esq., of Tormorden, Edwin Moore, Esq., Dr. J. H. Hammond, of Preston, and Frederick Bromley, Esq., of Oldham, who were requested to undertake the duty of distribution.

The thanks of the Committee are especially due to those gentlemen who have aided them with valuable local information and personal labour in the application of the funds entrusted to their care. The Committee have further the pleasing duty of acknowledging the receipt of £40 forwarded to the editor of THE LANCET by Assistant-Surgeon Leslie, of Madras. It is especially gratifying to receive such evidence of the *esprit de corps* which animates our professional brethren in distant parts of the world.

# Medical News.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 12th inst.:—

Brasey, William Arthur, General Hospital, Birmingham.
Davies, John, Coleshill, Warwickshire.

THE PRINCE OF WALES'S MARRIAGE was celebrated at the Royal Medical College, Epsom, on the 11th instant.

LANGIEWICZ, the hero and Dictator of Poland, is the son of a physician, and has a brother now practising the profession.

GARIBALDI'S WOUND has again shown symptoms of an aggravated character, which produce anxiety in the minds of his medical attendants.

RICHARD GREEN, the late eminent shipowner of Blackwall, bequeathed £2000 to the "Dreadnought" Hospital Ship, off Greenwich, and £2000 to the Poplar Hospital.

THE HEREFORD INFIRMARY is so crowded, that several in-patients have lately been obliged, after travelling long distances, to return home and await vacancies.

ROYAL SOCIETY.—The list of candidates for election into the Royal Society for the present session is closed. The number of names is forty five, and includes several members of the medical profession.

DR. FRERICHS' HEALTH.—On the 2nd inst., this eminent professor left for Nice, completely convalescent, after the severe illness with which he has been visited. It is expected that Frerichs will, towards the end of April, resume his lectures at Berlin.

DUBLIN HOSPITAL.—The sum voted for the Dublin Hospital for the present year in the civil service estimates is, as usual, £15,845, being the amount recommended by the Commission of Inquiry appointed in 1855.

HEALTH OF ROTHERHAM.—The general mortality of Rotherham is 44 in 1000, the deaths being more numerous than the births. Dr. Reed, a resident medical practitioner, says that "the havoc committed by cholera is as nothing compared with the slow and gradual destruction from our poisonous sewers in their work of depopulation."

SMALL-POX IN SHEEP.—The Mutual Wilts Association for the Prevention of Small-pox in Sheep is petitioning the Government to enforce a more strict supervision of the importation of foreign sheep, to which it is positively affirmed the recent outbreak of the epidemic in England was distinctly traceable.

CINCHONA.—Colonel Lake and Dr. Cleghorn have taken steps for the introduction of the quinine-yielding cinchona into the hill-ranges of the Punjab, a locality which seems favourable to the growth of this valuable plant, the products of which are so useful in many of those diseases which prevail among the people of India.

MEDICAL SOCIETY OF LONDON.—At the late anniversary meeting, a silver medal was awarded to Mr. W. C. Calthrop, of Withern, Lincolnshire, a Corresponding Fellow of the Society, for a paper on "Spontaneous Closure of the Axillary Artery after Gunshot Wound." There was no Fothergillian medal awarded this year.

MR. JOHNSTON, Surgeon of H.M.S. "Sphinx," was brutally assaulted a few days before the last advices from Hong Kong. He was attacked by a number of Chinamen as he was leaving Aberdeen, beaten with bamboo sticks, robbed, and left almost insensible, but was recovering at the time the mail left Hong Kong.

MR. T. PARKIN ATKINSON, of Kilham, Yorkshire, M.R.C.S. Eng., has sustained very severe domestic bereavements in the deaths of three of his children within five days, viz., on the 1st inst., Florence, aged eight years; on the 2nd, Edwin Augustine, aged nineteen months; and on the 5th, John Henry, aged four years and six months.

PRESIDENTS OF SOCIETIES.—At the meeting of the Pathological Society on the 17th inst., there were present, besides Mr. Prescott Hewett, the President, in the chair, Mr. Edwin Canton, President of the Medical Society of London, and Mr. Partridge, President of the Medical and Chirurgical Society, both of whom brought forward specimens for exhibition. At one time, the three Presidents were discussing the subject of operations on the ankle-joint.

SANITARY STATE OF ROMSEY.—In reply to a communication from Lord Palmerston, the Town Council and Guardians of Romsey, Hants, have forwarded a resolution passed at a recent meeting, in which they express their opinion that the operation of the Public Health Act is not needed there, the existing powers being amply sufficient for all sanitary purposes. We should be glad to know upon what evidence this resolution is founded.

AUTOLARYNGOSCOPIC DEMONSTRATIONS.—On the evening of the 13th inst., Dr. Gibb gave a demonstration to several of the pupils and others at St. George's Hospital of the Autolaryngoscope and Laryngoscope. He not only showed his own vocal cords, so that their movements could be studied by all present, but also the bifurcation of his trachea, in consequence of the excellence of the artificial light. He was enabled to open and shut the glottis at pleasure, without breathing, the closure producing an audible flapping sound.

CAMBRIDGE UNIVERSITY: SIR ROBERT REDE'S LECTURE.—The Vice Chancellor has appointed T. D. Ansted, M.A., F.R.S., late Professor of Geology in King's College, London, to the office of Sir Robert Rede's Lecturer for the ensuing year. Mr. Ansted, who is well qualified for the task, will deliver a lecture on "The Correlation of the Natural History Sciences," in the Easter term. — The Regius Professor of Physic will commence the course of lectures on Pathology, on Monday, April 13th, at nine A.M., at the Anatomical School, and will continue to lecture every Monday, Tuesday, Wednesday, Thursday, and Friday.

ACCIDENT TO A SURGEON DURING AN OPERATION.—M. Pauli, of Landau (Bavaria), lately operated for strangulated hernia, and found the intestine gangrenous. Whilst endeavouring to fix the perforated bowel to the margins of the wound, he pricked his middle finger with the needle. In a few hours the finger became violently inflamed, and the lymphatics soon shared in the phlogosis. Gangrene was apparent in the finger the next day, and amputation of the latter was resorted to. We are happy to state that M. Pauli has made a good recovery. —*Gazette des Hôpitaux.*

TYPHUS AMONG THE MEDICAL STAFF AT THE GENERAL HOSPITAL OF VIENNA.—The *Wiener Med. Woch.* of the 7th ult. states that no less than six assistant-physicians and a great number of ward-attendants are suffering from the typhus which has been raging in Dr. Haller's wards. The beds in these wards are not being filled at present, and the editor adds, very justly, that no less a measure than their complete closure is now imperatively called for.

THE WATER OF THE THAMES.—The principal facts indicated by an examination of the water of the Thames during the years 1861 and 1862 are thus described by Dr. Letheby:—

"1st. That the water in the middle of the river is invariably charged with a larger proportion of dissolved matter than that near the shore, but the quantity of suspended matter is greatest in the shore water.

"2nd. That the proportion of saline matter in the water is greatly influenced by the rain-fall and by the temperature of the river; for when the former is less than two inches in the month, and the latter is over 60° Fahr., the quantity of saline matter quickly rises from the normal proportion of about 22 grains in the gallon to upwards of 100 grains.

"3rd. That when from evaporation and a diminished rain-fall the supply of water to the river is from the ocean, instead of from the land, the mixture of the sea water with the sewage causes an offensive decomposition, which gives an unpleasant odour to the river.

"4th. That during strong winds, and at the time of the equinoxes, the quantity of suspended matter in the water is greatly increased.

"Lastly. It may be said that the normal composition of the river water is indicated by the proportions of the several constituents of the water during the first six months of the year—namely, from January to June. At that time the amount of saline matter ranges from 22 grains to 34 grains in the gallon, and of this quantity about 3·5 grains are organic. In the summer and autumn months, when evaporation from the river is considerable, the quantity of dissolved saline matter in the water sometimes exceeds 150 grains in the gallon. This shows that at those times of the year there is a strong upward current from the ocean, and it indicates the necessity at those periods for a very perfect defecation of the sewage of the metropolis which is to be discharged into the river at Barking Creek. If this circumstance is disregarded, the condition of the river in after-time, when the main drainage scheme is completed, will be unbearable and absolutely dangerous to health.

"Finally, I may say that the result of the constant examinations of the river water during the last five years shows that the quality of the water has been gradually improving, and that the special manufacturing impurities which were once so constantly present in the water are now no longer there. I attribute this to the careful supervision which is exercised by the officers of the Conservancy in preventing the discharge of such matter into the stream."

TESTIMONIAL TO E. A. PARKES, M.D., F.R.S.—On Tuesday, March 17th, Dr. Parkes, late Professor of Clinical Medicine at University College, was invited by a large number of his old pupils to a meeting, for the purpose of being presented with a bust of himself, subscribed for on the occasion of his resigning his office in that College.

The bust, a striking likeness, was the work of Edward Davis, Esq., of Charlotte street, Fitzroy square. The presentation took place in the Botanical theatre of University College, before a large assemblage of old and present students, and many of the Professors, former colleagues of Dr. Parkes. Dr. Jenner, the Professor of Medicine, presided. The following address was read:—

"*To Dr. Parkes.*

"SIR,—We have invited you here to-day that we might have an opportunity of presenting you with this testimonial of the affectionate esteem entertained for you by your old pupils.

"When three years ago you resigned your post as Professor at this College, there was a general feeling amongst us, not originated by one man, but one that seemed to take possession of all at the same time, that you should not be allowed to depart without taking with you some token of the affection you had inspired during your connexion with us. We could not but feel that, not contented with being merely a teacher, you had striven to be a friend as well; that you had not only fulfilled most perfectly the duties which the office required, but had added thereto kindnesses such as no office could require, and no student expect.

"There are amongst us some who, of course, feel this more strongly than others; there are amongst us those who have experienced at your hands kindnesses so great that no moments can fitly express their gratitude; but we beg you to believe that there is no one who has taken part in the preparation of this testimonial who does not feel that in his remembrance of you there is something warmer than mere admiration of your skill as a teacher, something better than mere respect for your eminence as a man of science.

"That said, there is little more to add. You will at once perceive that we who are present here are but a few out of the number of those who have united to present you with this bust. We should have preferred, if it had been possible, having all the subscribers present, but their very absence furnishes, we think, the not unpleasant reflection that all over the kingdom are scattered men who were once your pupils, and who still think, and will ever think of you with affection and respect."

ATTEMPTED SUICIDE.—A NEW ADULTERATION.—At the Clerkenwell Police-court, recently, two girls were charged with attempting to commit suicide by taking a solution of copperas. Fortunately, however, the act was not attended by fatal effect. The copperas was taken by one of the girls from her brother, a sweep, who, in reply to a question from the magistrate, said that he used it in his business for dyeing sawdust, to sell to the farmers for soot.

THE PEABODY GIFT.—Dr. Gibbon, Medical Officer of Health, has reported to the Board of Works for the Holborn District that, in compliance with their directions, he has had interviews with the trustees of the Gift, and had learned that they were anxious to erect houses in the Holborn district. Several appropriate sites have been suggested. The example set by Mr. Alderman Waterlow is deserving of imitation. He has demonstrated most satisfactorily that wholesome and commodious dwellings for the poor can be erected at a comparatively small expenditure. It would be lamentable indeed that the noble gift of Mr. Peabody should fall of its full effect by any mismanagement on the part of those who are commissioned to carry out its objects.

TESTIMONIAL.—The 10th Corps of the Wilts Rifle Volunteers took the occasion of their mustering to take part in the Warminster festivities on the Prince of Wales's wedding-day, to present their Honorary Assistant-Surgeon with a testimonial, in the shape of an elegant and valuable silver claret-jug, bearing the following inscription:—

"Presented by the Officers, Non commissioned Officers, and Privates of the 10th Wilts Rifle Volunteers to Charles Bleeck, Esq., Assistant-Surgeon to the corps, as a mark of their esteem and gratitude for his valuable services.—March 10th, 1863."

We understand that Mr. Bleeck has been a great advocate for early morning drills, which have been much encouraged, and kept up with great spirit twice a week all the year round, by his offering two prizes in the year to be competed for by such as attend the required number of such drills.

CHEMICAL ACCIDENT.—Last week we recorded the fatal accident with nitric acid at Edinburgh, and we now direct attention to another laboratory accident which occurred at the Faculty of Sciences at Paris. The gasometer containing the hydrogen unfortunately burst, and the explosion caused splinters of wood to strike M. Bérard in the face. He was badly wounded, but is likely to recover. The shock was so powerful that another person near at hand was knocked down.

SMALL-POX IN MANCHESTER.—Small-pox has been unusually prevalent for the last two or three months. During the first week in March the various charities and public institutions reported forty five new cases, and, including cases in private practice, not less than a hundred would be the actual number. The Manchester and Salford Sanitary Association has called the attention of the Relief Committees, &c., to the subject of vaccination, and more particularly to the repetition of it in the adult. We should be glad to learn to what extent the Vaccination Act has been carried out in this important town. What are the number of vaccinated and unvaccinated persons who have been attacked by the epidemic? What is the proportion of the vaccinated and unvaccinated who contract or are the subjects of the disease?

NEW REMEDY FOR BURNS.—A blacksmith in the South of France has just been fined for illegally practising medicine. He is famous for the cure of burns, and used to request from the patient a five franc piece, which he held over the burn whilst uttering cabalistic words, and then put the coin into his pocket.

A MEDICAL VICTIM IN ITALY.—A parish doctor in a province of Italy was lately offered £20 to assist a young man in getting free of military service by wrongfully declaring him unfit. The worthy man refused the bribe, firmly adhered to truth, and the conscript was incorporated. The family now meditated revenge, and the poor doctor was waylaid and treacherously shot. He escaped, however, with many wounds, and will, it is hoped, ultimately recover.—*L'Imparziale.*

INFECTION IN STREET CABS.—We are glad to learn that the vestry of Paddington have, upon the urgent recommendation of the Sanitary and Public Health Committee, unanimously resolved to provide a carriage for the conveyance of patients suffering from infectious diseases to any hospital, infirmary, or workhouse. The cost will be about £30, and the carriage will be stationed in the Green Yard, under the care of the Green Yard keeper.

HEALTH OF LONDON DURING THE WEEK ENDING SATURDAY, MARCH 16.—In the week that ended on Saturday the deaths of 1561 persons (802 and 759 females) were registered in London. 336 persons died of zymotic diseases, including 47 by small-pox, 36 by measles, 66 by scarlatina, 16 by diphtheria, 35 by typhus, 67 by whooping-cough. Of 337 deaths assigned to diseases of the respiratory organs, 170 were caused by bronchitis, 114 by pneumonia, 16 by asthma. Phthisis was fatal in 191 cases. A labourer, aged 48 years, died in Guy's Hospital from glanders. 36 persons died by accidents; but it is evident that while some deaths are really accidental, the greater part arise from the negligence of the persons themselves or of others, and many such deaths may therefore be prevented. A case of infanticide was registered, and five suicides.

The births were—boys, 1006; girls, 946.

## MEDICAL VACANCIES.

Hartley Wintney Union (Heckfield District)—Medical Officer.
York Dispensary—Resident Medical Officer.

## MEDICAL APPOINTMENTS.

A. HENLEY ATTWATER, M.R.C.S.E., has been appointed Medical Officer of District No. 2 and the Workhouse of the Dulverton Union, Somerset-shire.

E. BARKER, M.R.C.S.E., has been appointed Medical Officer for the Brightside West District of the Sheffield Union.

J. C. BRUMWELL, M.D., has been elected Medical Officer and Public Vaccinator for the Burnley District and Workhouse.

J. B. BRUMWELL, M.D., has been elected Medical Officer and Public Vaccinator for the Colne District of the Burnley Union.

CAMBRIDGE CARY COCKS, M.D., has been elected Medical Officer for District No. 4 of the Ross Union, Herefordshire, vice E. Jones, M.D., resigned.

WM. COOKE, L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Llantrissant District of the Pontypridd Union, Glamorganshire.

A. G. COX, M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Crewkerne No. 1 District of the Chard Union, Somersetshire, vice Mr. W. Ewington, resigned.

H. CRUTCHLEY, L.R.C.P., has been appointed Medical Officer for District No. 2 of the Mansfield Union, Nottinghamshire, vice Thomas Godfrey, M.R.C.S.E.

W. STEPHEN DAVIS, M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Mountain Ash District of the Pontypridd Union.

WM. EVANS, L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Ystradyfodwg District of the Pontypridd Union.

T. A. FERRIMAN, M.R.C.S.E., has been appointed Medical Officer for the Hartley Wintney District and the Workhouse of the Hartley Wintney Union, vice H. J. Shirley, F.R.C.S.E., resigned.

ERNEST HART, M.R.C.S.E., Ophthalmic Surgeon to St. Mary's Hospital, has been appointed Lecturer on Ophthalmic Surgery, vice Wm. White Cooper, F.R.C.S.E., resigned.

E. HEAD, M.B., has been appointed Professor of Botany at the Charing-cross Hospital Medical School, vice Mr. J. Symes, resigned.

G. YEATES HUNTER, M.D., of Margate, has been appointed a Cinque Port Justice of the Peace by the Right Hon. Viscount Palmerston, Lord Warden of the Cinque Ports.

WM. KNAL, M.R.C.S.E., has been elected Coroner for the County of Rutland.

J. LEIGH, M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Lanfabon District of the Pontypridd Union.

J. LLEWELLYN, M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Caerphilly District of the Pontypridd Union.

WALTER MORGAN, M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Pontypridd District of the Pontypridd Union.

DR. OFFICER has been elected Speaker of the House of Assembly, Tasmania.

J. RANDALL, M.D., has been appointed Lecturer on Medical Jurisprudence at St. Mary's Hospital Medical School, vice J. Burdon Sanderson, M.D., appointed Assistant-Physician at Middlesex Hospital.

H. SPENCER SMITH, F.R.C.S.E., has been appointed Surgeon to St. Mary's Hospital, vice Wm. Coulson, F.R.C.S.E., resigned.

C. GORDON STRAGUE, M.R.C.S.E., has been elected Medical Officer and Public Vaccinator for the Workhouse and for the Eastchurch District of the Sheppey Union, Kent, vice J. Jaap, M.D., resigned.

MONTAGUE THOMAS, L.F.P.S. Glas., has been appointed Medical Officer for the Workhouse and District of Headley, South Hants, vice Wm. Woodhouse, M.R.C.S.E., resigned.

MARTIN WOODWARD, M.R.C.S.E., has been re-elected Medical Officer and Public Vaccinator for the Fladbury District of the Pershore Union, Worcestershire.

## MILITARY AND NAVAL MEDICAL APPOINTMENTS.

E. S. BATESON, Assist.-Surg. Bengal Service, attached to the 5th Brigade Royal Horse Artillery, Mean Meer, has been appointed Civil Surgeon of Umballa.

F. T. BAYNTON, M.R.C.S.E., Assist.-Surg. Madras Army, has been appointed to do duty with H.M.'s 102nd Foot, to join Head Quarters of the Regt.

W. B. BEATSON, M.D., Bengal Service, has been appointed personal Surgeon to the Governor-General of Bengal, to accompany his Lordship to the North-West Provinces, without prejudice to his permanent appointment as Civil Surgeon of the 24 Pergunnahs.

J. BELL, L.R.C.P.Ed., has been appointed Surgeon to the 1st Administrative Brigade of the Lincolnshire Artillery Volunteers.

B. S. BOOTH, M.D., has been appointed Assistant-Surgeon to the Calcutta Volunteer Rifle Corps.

J. BRAKE, Assist.-Surg. Bengal Service, in joint medical charge of Simla, has been appointed to the charge of the Commissariat Stores at Jowal, in addition to his other duties.

J. BRETT, M.D., 1st Class Assist.-Surg. Madras Service, has been promoted to Surgeon, vice Goodall, retired.

E. B. BROOTEN, Assist.-Surgeon R.N., has been appointed to the "Flagard" (additional).

R. K. BUCKELL, M.R.C.S.E., Indian Service, Surgeon of the 36th Native Infantry, has been placed in charge of the duties of Civil Assistant at Lullutpore, in addition to his military duties, as a temporary arrangement.

G. A. CAMPBELL, M.D., Assist.-Surgeon R.N., has been appointed to the "Sparrow."

R. W. COCKERILL, Assist.-Surg. Madras Service, has been appointed Zillah Surgeon of Chicacole, vice Rean, resigned.

J. C. COLLINS, Surgeon Bengal Service, has been posted to H.M.'s 107th Foot.

A. C. CASTROIT DE RENZY, M.R.C.S.E., of the Bengal Service, Assist.-Surg. 29th Native Infantry, has exchanged appointments with Assist.-Surgeon Fleming, with the sanction of the Commander-in-Chief.

W. DICK, M.D., Staff Surg.-Major Army, has been appointed Deputy Inspector-General of Hospitals, vice A. Stewart, retired upon half-pay.

J. E. DICKINSON, Assist.-Surg. Madras Army, doing duty with the 2nd Native Infantry, has been posted to the 10th Native Infantry.

J. J. ELLIS, Assist.-Surg. R.N., has been appointed to the "Fox."

G. FANE, Assist.-Surg. R.N., has been appointed to the "Pandora."

J. G. FAUGHT, M.R.C.S.E., Assist.-Surg. 46th Foot, has been appointed Staff Assist.-Surg., vice Frank Post, appointed to the 46th Foot.

J. FERGUSON, Assist. Surg. 3rd West India Regiment, has been appointed Staff Assist.-Surgeon, vice W. Lindsay, deceased.

A. FITZGERALD, Assist.-Surg. Bengal Service, Civil Assist.-Surgeon of Moradabad, has been placed in charge of the Jail of that District, and invested with the powers of a Magistrate to be exercised within the precincts of the Jail.

J. M'NAUGHTEN FLEMING, M.D., Assist.-Surg. Bengal Service, attached to A Battery 19th Brigade Royal Artillery, has exchanged appointments with Assist.-Surg. Castroit de Renzy, with the sanction of the Commander-in-Chief.

W. FRY, Assist.-Surg. Madras Army, from 21st Native Infantry, has been appointed to do duty in the department of Deputy Inspector-General of Hospitals, Southern Division.

T. FULTON, M.D., Assist.-Surg. R.N., has been appointed to the "Indus."

J. J. HAFFENDEN, Assist.-Surg. Madras Army, has been posted to the 11th Native Infantry.

T. JAMESON, M.D., Assist.-Surgeon R.N., has been appointed to Greenwich Hospital.

J. MILLER, M.D., Assist.-Surgeon Madras Service, has been appointed to do duty with the 21st Native Infantry.

J. H. PATTERSON, M.D., Staff Surgeon R.N., has been appointed to the "Royal Adelaide."

R. E. PEARSE, Assist.-Surg. Madras Army, has been appointed to do duty with the Detachment of H.M.'s 102nd Foot at Calicut.

M. J. S. PERREAU, M.R.C.S.E., Assist.-Surg. Bengal Service, has been appointed to do duty with the 19th Hussars at Meerut.

R. PICKEN, M.D., Surgeon R.N., has been appointed to the "Orpheus."

F. POST, M.R.C.S.E., Staff Assist.-Surgeon Army, has been appointed Assist.-Surg. 46th Foot, vice J. G. Faught, appointed to the Staff.

R. PRINGLE, M.D., Assist.-Surg. Bengal Service, has been appointed to the medical charge of A Battery 2nd Royal Horse Brigade, vice Assist.-Surg. G. S. Sutherland.

B. M. RICHARD, L.F.P.S. Glas., has been appointed Hon. Assist.-Surg. to the 3rd Dumbartonshire Artillery Volunteers.

C. RICKETTS, Bengal Service, Assist.-Surg. 7th Royal Fusiliers, has been appointed to the medical charge of Ferozepore Brigade Staff, in addition to his other duties.

R. W. SAUNDERS, M.D., Staff Assist.-Surg. Army, has been appointed Assist.-Surg. 10th Foot, vice H. Ferguson, appointed to the Staff.

J. SANDISON has been appointed Staff Assist.-Surg. Army, vice F. Oakes, promoted on the Staff.

R. V. SKINNER, M.R.C.S.E., has been appointed Assist.-Surgeon to the 2nd Sussex Artillery Volunteers.

G. S. SUTHERLAND, M.D., Assist.-Surg. Bengal Service, has been appointed to the medical charge of the Nynee Tal Convalescent Depôt, vice Assist.-Surg. J. H. Porter, of the 97th Foot.

P. W. SUTHERLAND, Assist.-Surg. 14th Bengal Cavalry, has been appointed to the medical charge of the Staff of the Station, Morar, vice A. L. Bogle, Surgeon 19th Native Infantry.

G. TAYLOR, M.D., Deputy Inspector-General Army (at present serving in Canada), has been appointed principal Medical Officer of Chatham Garrison, vice Arthur Anderson, M.D., Inspector-General, appointed to Netley Hospital.

J. TAYLOR has been appointed a Deputy Inspector-General of Hospitals and Fleets on the Retired List.

W. K. WALLER, M.D., has been appointed Surgeon to the Calcutta Volunteer Rifle Corps.

W. WHITE, M.D., Surgeon Indian Service, has been appointed to the medical charge of H.M.'s East Indian Regiment, vice Assist.-Surg. E. C. Thorp.

# Births, Marriages, and Deaths.

## BIRTHS.

On the 29th of Jan., at Singapore, the wife of J. Hutchinson Robertson, M.D., of a son.

On the 2nd ult., at Serampore, the wife of Dr. J. J. Carshore, of a son.

On the 5th ult., at Chittoor, East Indies, the wife of Assist.-Surgeon W. F. De Fabeck, Acting Civil Surgeon, of a daughter.

On the 28th ult., at Golspie, the wife of Dr. D. G. Pendrith, R.N., of a son.

On the 5th inst., at Shoeburyness, the wife of Geo. Pain, M.R.C.S.E., Surgeon Royal Artillery, of a daughter.

On the 8th inst., at Donegal-square West, Belfast, the wife R. F. Dill, M.D., of a daughter.

On the 10th inst., at Castle-street, Shrewsbury, the wife of Francis Whitwell, M.R.C.S.E., of a son and daughter.

On the 10th inst., at Paris, the wife of W. V. Beadle, M.D., of twins.

On the 10th inst., at Nous, near Cashel, Co. Tipperary, the wife of T. R. Armitage, M.D., of a son.

On the 11th inst., at Melton-street, Euston-square, the wife of H. Reynolds Myers, L.F.P.S. Glas., of a daughter.

On the 11th inst., the wife of Mathias Roth, M.D., of Old Cavendish-street, of a son.

On the 13th inst., at York-place, Edinburgh, the wife of H. D. Littlejohn, M.D., of a daughter.

On the 13th inst., at Belton House, Pensford, Somersetshire, the wife of Dr. H. Dew, of a daughter.

On the 12th inst., at Stony Stratford, the wife of A. D. Mackay, M.B., of a daughter.

On the 12th inst., at Maryport, Cumberland, the wife of W. B. Mathias, M.R.C.S.E., of a daughter.

On the 13th inst., at Burntisland, Fifeshire, the wife of Dr. Williamson, of a son.

On the 13th inst., at Matfen, Newcastle, the wife of W. A. Barnes, Surgeon, of a son.

On the 14th inst., at Oxford-street, Liverpool, the wife of J. Birkbeck Nevins, M.D., of a son.

On the 15th inst., at Cottenham, Cambridgeshire, the wife of John Bridger, M.R.C.S.E., of a son.

## MARRIAGES.

On the 23rd of Dec., at Yokuhama, G. R. Jenkins, M.R.C.S.E., Medical Officer to H.M.'s Legation, Japan, to Mary Annie, daughter of the late E. W. Jones, Esq., of Holt, Chester.

On the 24th ult., at Burnfoot, Inverness, W. Conway Hine, M.R.C.S.E., of Swineshead, Lincolnshire, to Amy Jane, third daughter of Jas. Davidson, Esq., of Inverness.

On the 9th inst., at St. Fagans, Cardiff, J. Buscombe Lansdown, L.R.C.P.Ed., to Mary Lucy, eldest surviving daughter of the late Rev. Chas. Emerson, of Llanfair, St. Fegans.

On the 10th inst., at St. Pancras Church, R. Eddowes, M.R.C.S.E., to Margaret Charlotte, eldest daughter of Walter Gorway, Esq., of Swinton-street.

On the 12th inst., at Saxmundham, Jas. Simpson, L.F.P.S. Glas., of Leiston, Suffolk, to Maria, youngest daughter of the late W. Woolnough, of Park Farm, Saxmundham.

On the 17th inst., at Wakefield, T. Lawes Rogers, M.D., of Rainhill, Lancashire, to Henrietta, eldest daughter of Capt. Blastead, R.N.

## DEATHS.

On the 2nd of Dec., at Bonin, Western Coast of Africa, Alex. M'Math, M.D.' aged 33.

On the 13th ult., at New York, G. E. Geoghegan, L.K.Q.C.P.I., late of Rathmines-road, Dublin.

On the 7th inst., at Truro, E. Osler, M.R.C.S.E., Editor of the "Cornwall Gazette," aged 66.

On the 11th inst., at Marlborough-place, Walworth-road, Richard Marshall, M.R.C.S.E., aged 48.

On the 13th inst., E. Wilson, M.R.C.S.E., of Cannon-street, St. George's-in-the-East, aged 48.

# Medical Diary of the Week.

**MONDAY, MARCH 23 ...**

LOCK HOSPITAL, Dean-street, Soho.—Clinical Demonstrations and Operations, 1 P.M.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM.—Operations, 1½ P.M.

METROPOLITAN FREE HOSPITAL. — Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—8½ P.M. Mr. W. J. Coulson, "On a Case of Obturator Hernia; Operation."

**TUESDAY, MARCH 24...**

GUY'S HOSPITAL.—Operations, 1½ P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION. — 3 P.M. Prof. Marshall, "On Animal Mechanics."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Huxley, "On the Structure and Development of the Vertebrate Skeleton."

ANTHROPOLOGICAL SOCIETY OF LONDON.—7½ P.M. Capt. R. F. Burton: "A Day amongst the Fans." — Prof. Raimondi: "Indian Tribes of Loreto, North Peru."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON. — 8½ P.M. Dr. Greenhow, "On Diphtheria: Nerve Affections."—Mr. Henry Thompson, "On the Treatment of Severe Stricture of the Urethra by Gradual Distension at a Single Sitting."

**WEDNESDAY, MAR. 25**

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. MARK'S HOSPITAL.—Operations, 1 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M.

HUNTERIAN SOCIETY. — 8 P.M. Dr. M'Donnell, "On a Case of Disease of the Knee-joint, with Abscess and Necrosis of the Tibia." — Mr. Hutchinson, "On a Case of Injury to the Brachial Plexus, supposed to have been Torn through near the Spine."

**THURSDAY, MARCH 26**

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 1 P.M.

LONDON HOSPITAL.—Operations, 1½ P.M.

ROYAL FREE HOSPITAL.—Operations, 1½ P.M.

GREAT NORTHERN HOSPITAL, KING'S CROSS.—Operations, 2 P.M.

LONDON SURGICAL HOME.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL. — Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Dr. E. Frankland, "On Chemical Affinity."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Huxley, "On the Structure and Development of the Vertebrate Skeleton."

**FRIDAY, MARCH 27.....**

WESTMINSTER OPHTHALMIC HOSPITAL. — Operations, 1½ P.M.

ROYAL INSTITUTION.—8 P.M. Mr. W. Crookes, "On the Discovery of the Metal Thallium."

**SATURDAY, MARCH 28**

ST. THOMAS'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION. — 3 P.M. Prof. MAX MÜLLER, "On the Science of Language." (2nd Series.)

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Huxley, "On the Structure and Development of the Vertebrate Skeleton."


## TERMS FOR ADVERTISING IN THE LANCET.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| For 7 lines and under ..... | £0 | 4 | 6 | For half a page ..... | £2 | 12 | 0 |
| For every additional line..... | 0 | 0 | 6 | For a page ..... | 5 | 0 | 0 |

The average number of words in each line is eleven.

Advertisements which are intended to appear in THE LANCET of any particular week, should be delivered at the Office not later than on Wednesday in that week: those from the country must be accompanied by a remittance.

## TERMS OF SUBSCRIPTION TO THE LANCET.

UNSTAMPED.

| | | | |
|---|---|---|---|
| One Year ... ... ... ... ... ... ... ... ... | £1 | 10 | 4 |
| Six Months... ... ... ... ... ... ... ... ... | 0 | 15 | 2 |
| Three Months ... ... ... ... ... ... ... ... | 0 | 7 | 7 |

STAMPED.

(*To go free by post.*)

| | | | |
|---|---|---|---|
| One Year ... ... ... ... ... ... ... ... ... | £1 | 14 | 8 |
| Six Months... ... ... ... ... ... ... ... ... | 0 | 17 | 4 |
| Three Months ... ... ... ... ... ... ... ... | 0 | 8 | 8 |

Post-office Orders in payment should be addressed to GEORGE FALL, THE LANCET Office, 423, Strand, London, and made payable to him at the Strand Post-office.

THE LANCET *may be obtained from every respectable Bookseller or Newsman in the World.*


# To Correspondents.

### HOSPITAL PRECEDENCE.

FURTHER questions have been addressed to us in respect to precedence of surgeons elected at hospitals. As we stated last week, where the professional status of the candidates is equal, and in the absence of any *previous arrangement*, the number of votes would decide precedence. Where, however, one candidate is senior to another, it is the custom in some hospitals for the date of diploma to settle questions of precedence. There is not, perhaps, any absolute rule of universal application, and it is not uncommon for such matters to be specially arranged in anticipation of elections.

*Army Surgeon*, (T.D.)—The Medical Department of the United States Army is now, we believe, conducted with ability and success by Surgeon-General Hammond. An American contemporary informs us that our own Medical Director has expressed his most decided approval of the management of the American Medical Department. He is stated to be informed of all that occurs in connexion with the latter by Deputy Inspector-General Muir, who is upon a tour of observation across the Atlantic. This gentleman was present at the battle of Antistam, and remarked that no battle-field was ever more quickly and abundantly provided with every necessary for the wounded.

*Traveller*, (*N.B.*)—The Homburg waters are, speaking generally, cold saline. Chloride of sodium is their principal constituent, with an abundance of carbonic acid gas. But the components of the spa waters at the different springs vary somewhat. They are generally considered to rank amongst the most valuable mineral springs in Europe.

*A Student*, (Bunbury.)—The Eustachian valve serves the purpose of directing the current of the blood so that admixture does not ensue. The more recent experiments of Reid confirmed the surmises of Sabatier, in opposition to the assertion of Winslow—viz., that the two kinds of blood become intimately mixed. Reference may be made to Carpenter's Physiology.

*An Assurance Official.*—The letter came to hand, and shall receive attention.

### PECULIAR COLORATION OF THE SKIN.

*To the Editor of* THE LANCET.

SIR,—Having seen two or three cases similar to that related by Dr. Smith, I have been induced to form a different opinion with regard to their nature.

They consist, I believe, essentially in the presence of an unusual quantity of pigment in the secretion of a variety of sudoriparous glands found in the axilla. It is, I believe, well known that there are two varieties of sudoriparous glands, the thick and thin walled; the former differing from the latter not only in their secretion (which under ordinary circumstances is a yellow, thick, semi-transparent fluid, containing, in addition to the ordinary constituents of sweat nuclei, granules, epithelial scales, and a certain proportion of pigment—the latter is often very much increased during profuse perspiration), but in their structure, having, in addition to the epithelium and basement membrane forming the coats of the thin-walled variety, an investment of unstriped muscular fibre.

In the cases which I have seen, the patients had taken nothing containing an unusual quantity of colouring matter. One of them was suffering from rheumatic fever, and therefore perspiring profusely.

I remain, sir, yours, &c.,

March, 1863. VERITAS.

*Mr. A. Linton Boyle*, (Hay, South Wales.)—When a physician is called into consultation, it is etiquette for him not to see or prescribe for the patient in the absence of the practitioner whom he was requested to confer with. Departure from this wholesome rule is under ordinary circumstances unjustifiable. This notice may probably have the effect Mr. Boyle desires without more definitely alluding to the particulars which he has detailed.

*R. T.*—Professor Esterle, of Novara, was only forty-two years of age when he died. His death was due to purulent infection, contracted while attending a difficult labour.

*Mr. P. Vincent.*—The law does not recognise any compulsory confinement under the circumstances. Nevertheless, in Scotland an attempt has been made to establish such an asylum. Dr. Christison, of Edinburgh, if we are not mistaken, interested himself in the matter.

### THE GEORGE-STREET MUSEUM.

THE case of Mr. Jordan is still pending. The decision of the Council will of necessity be deferred for some time. It is earnestly to be hoped that rigorous measures will be taken to vindicate the honour of the profession.

*A Subscriber, L.R.C.P. & S.G.*—An answer next week.

*E. M.*—There is no such establishment. Application, however, might be made to the Rev. W. W. Cazalet, of Maddox-street, Regent-street, London.

### WISDOM FROM THE LAST EXTRAORDINARY ADVERTISEMENT.

*To the Editor of* THE LANCET.

SIR,—I beg to offer through your columns, for the amusement of professional brethren, a *verbatim* copy of an advertisement which appears in page 3 of *The Times* of March 11th.

Sincerely wishing that the *medical* man may speedily obtain his object,

I am, Sir, yours obediently,

March, 1863. A CONSTANT READER.

P.S.—The address is at the East-end of London.

"Wanted, by a medical man, (who can cure in a few days almost any bodily disease, and dispense accurately,) a few hours' employment daily between 12 and 6 o'clock, either to visit or dispense.—Address, stating terms, to ————, where any person in town or country may obtain excellent medicines to cure any complaint, morning and evening as usual."

*R. S.* (H——, Norfolk) is mistaken in supposing that the appointment in question rested solely with Mr. H. The act was that of the whole Committee. From inquiries which we have instituted, we believe that the Committee acted as it did for the benefit of the hospital. We do not, however, mean to maintain that there are not abuses crying for reform at the school in question. If these, the *real* abuses, are calmly pointed out, they shall receive from us proper consideration.

*Mr. James Coombs* (Bedford) mistakes his position in the controversy. The question which has been put to him is clear and definite. Has he ever practised, or does he now practise, homœopathy? The answer to this question, if forwarded to us by Mr. Coombs, shall be published.

*Dubium.*—1. Doubtful.—2. Lumley's Manual for Poor-law Medical Officers.—3. Not essentially necessary.

*M.D.* (Cheltenham) should write to Mr. Godrich or to Mr. D. O. Edwards on the subject.

*Inquirer.*—The works of Jervis and Baker on the Duties of a Coroner. The Medical Witnesses Act makes no such invidious distinction.

*Justitia.*—It is not at all probable that any such steps will be taken.

*X. M.*—1. The next examination will take place in August.—2. To Dr. Gibson, Director-General of the Army Medical Department, 6, Whitehall-yard.

*One of the Victims.*—Next week.

*Emigrant.*—The entire emigration last year to the United States amounted to 114,475 persons, nearly 100,000 arriving at New York.

*One who is Anxious to Know.*—Both naval men and civilians. Application should be made to Dr. Elliott, Surgeon-in-Chief, 6, Little George-street, Westminster; but we understand that there are no vacancies.

*Dr. J. B. Gill* has forwarded to us one guinea as his subscription to a fund to defray Mr. Adams's costs in the late trial.

*A House-Surgeon.*—Such an appointment would, to say the least of it, be unusual; but not knowing more of the circumstances of the case, we are unprepared to give a decisive opinion.

*A Poor-law Medical Officer.*—If the patient were a pauper, the Board of Guardians is liable.

*Doubtful.*—The regulations of the Poor-law Board require that a Poor-law medical officer should have a medical and surgical qualification. In exceptional cases, a single qualification is admitted to be sufficient. The case stated by our correspondent appears to be one in point.

*Brincesis.*—Is it possible that Dr. Forrest and Dr. Adams were cognizant beforehand of the issue of the puffing paragraph in the Dublin newspapers?

### TWIN BIRTH WITH PLACENTA PRÆVIA.

*To the Editor of* THE LANCET.

SIR,—At about four A.M. on the 28th of May, 1859, I received a hasty summons to a village, distant about eight miles, to attend a woman in labour, who, as the messenger, her husband, expressed it, "was bleeding from her inside." On my arrival I found the hæmorrhage somewhat checked; the vagina full of coagula; no pains; the os uteri just admitting the tips of two fingers, thick, but moderately soft and dilatable; the membranes presenting, with a portion of placenta to be felt posteriorly; the woman very faint—a circumstance to which she was probably indebted for the temporary arrest of the hæmorrhage. I decided on immediate delivery. Passing my hand through the os uteri, which yielded readily, and through the membranes, I found the head presenting in the first position. Catching hold of a foot, I brought it down to the os externum, and secured it with a piece of tape. I now desisted from interference until I had prepared and administered a dose of ergot of rye, and then waited for pains, which very soon came on, so that I was enabled to complete the delivery in about a quarter of an hour. I now found that there was a second child in utero. There being good uterine action, with a very tense bag of membranes, I ruptured immediately, and turned the second child, without troubling myself to ascertain its precise position. It was lying somehow with its back upwards, its arms and legs downwards, and its head near the sacrum. I may remark that on introducing the hand for the purpose of delivering the second child, I found a considerable portion of the placenta (of the first?) lying in the vagina, and interfering somewhat with access to the membranes of the second. That placenta came away with the head of the second child; it was probably the placenta which had originally presented, for it was much lacerated. The other placenta speedily followed. There was no more hæmorrhage, and the mother recovered quickly without a bad symptom. The children—a boy and girl—were both living; but both died in the course of the day, the former surviving its birth four hours, the latter six. The woman was not more than seven months advanced in pregnancy.

I have met with two other cases of hæmorrhage during labour with twins. Of the former of those cases I have the following note:—

"Aug. 9th, 1849.—Twin boys. 1st, face to pubes; 2nd, natural. There was considerable hæmorrhage before the rupture of the first set of membranes, as well as after the removal of the placenta. There was some dilatation of the os uteri, but no pains, on my arrival at one A.M. I ruptured the membranes immediately, and at two gave a dose of ergot. The pains soon came on nicely, and the hæmorrhage ceased. I could not feel the placenta anywhere near the os uteri. Several coagula, but no fluid blood, escaped after the birth of the first child. The second child came away naturally about ten minutes after the birth of the first, I having previously ruptured its membranes. After the removal of the placenta, the hæmorrhage which came on was very great, attended with frequent faintings and sickness; but as the pains remained moderately distinct, and the fundus uteri felt hard and contracted, I merely sprinkled the face with cold water, and gave some brandy for the relief of the faintings. At the end of an hour I left the patient quite comfortable, and she recovered without any bad symptoms. Both the children were living."

Of the latter case my note is as follows:—

"Dec. 24th, 1856.—Twin girls; presenting, 1st, the breech; 2nd, the vertex. On my arrival, finding the membranes tense, with the os uteri well dilated, I ruptured, and the child was almost immediately expelled, the breech presenting. Considerable hæmorrhage immediately following the birth of this child, I examined as for the placenta, and finding a second child in utero, which presented the vertex, while blood kept pouring away, I, without withdrawing my hand, searched for a foot, turned and delivered. The hæmorrhage thereupon ceased. The placenta came away naturally, and there was no more hæmorrhage. The children were both living, and the mother did well. Query, What was the cause of the hæmorrhage?"

Doubtless the cause of the hæmorrhage was the implantation of the second placenta dangerously near the os uteri, that placenta not having been disturbed until after the birth of the first child.

If I understand it correctly, the main point at issue in the present controversy is the propriety of delivering by turning in cases of *hæmorrhage* preceding or accompanying labour. I will not say in cases of "*placenta prævia*;" for I cannot in such a discussion as the present recognise any distinction between ante-partum hæmorrhage with the placenta felt to be wholly or partially implanted over the os uteri, and ante-partum hæmorrhage where the placenta cannot be so felt, although in the latter case it is mostly unnecessary to do more by way of operative interference than to rupture the membranes, that proceeding being almost invariably efficacious in arresting the hæmorrhage, so that the case may then be left to nature. Let me be understood. When I say that I cannot recognise the distinction named, I mean that, as respects the present discussion, there can be no greater danger from turning in the one case than in the other; while in both cases delivery by turning, cautiously practised, will be found to be the most certain and successful plan of procedure. But it is alleged that it is especially in *twin* births, with hæmorrhage during the labour, that turning is dangerous, as being likely to be followed by post-partum hæmorrhage or collapse. Here again I must refuse to recognise the necessity, as regards treatment, of making any distinction between twin births and single births with placenta prævia, as it is impossible to distinguish between them until after the plan of procedure has been acted upon, or until after the birth of the first child.

Well then, on analyzing the three cases reported above, we find that in the second, which was left to nature with the trifling exception that I ruptured the membranes, the hæmorrhage returned profusely after the labour; while in the other two, in which delivery was somewhat hastily effected by turning, there was no subsequent hæmorrhage and no collapse. In the last reported case, it is true, I only turned the second child; but that case presented the rare peculiarity that it was only that second child whose birth was complicated with ante-partum hæmorrhage. In fact, when that variety of hæmorrhage did take place, the case had become practically one of *single* birth with hæmorrhage.

I have delivered many times by turning in single births with hæmorrhage, in several of them with the placenta felt at the os uteri, and never found either hæmorrhage or collapse follow such delivery. I have, on the other hand, more than once found the one or the other of these conditions follow the birth where I have turned and delivered hastily, under other circumstances calling for that method of delivery.

I think that "shock" or collapse and hæmorrhage after delivery by turning may mostly be averted by delivering slowly—that is, by making no traction after the breech has arrived on the perinæum—allowing the fœtus then to be expelled by the pains, which, by reflex influence, almost invariably come on at that stage with strength sufficient to render the emptying of the uterus perfectly safe. To obviate "shock," it is also advisable to tell the patient quietly what you are going to do, as surprise at sudden delivery may cause such collapse, even although there may be no hæmorrhage. A dose of ergot of rye may also be given, with the double advantage of giving time and securing better uterine action.

With regard to Mr. Ellis's case, the publication of which has led to all this discussion, I think he did quite right. The unfortunate result of the case was entirely exceptional, in my opinion, and he deserves great credit for having had the moral courage to publish it. Even supposing it were proved that turning in twin births with placenta prævia is peculiarly dangerous, which I contend it is not, it is clear that it is most absurd to lay down a rule which cannot be acted on; for as I have shown, and as is obvious, no one can know that the case of hæmorrhage before him is a twin case until his plan of procedure has been mainly carried out.—Your obedient servant,

Alford, Lincolnshire, March, 1863. R. UVEDALE WEST, M.D.

*** It seems strange that the frequency of the coincidence of placenta prævia with twin pregnancy should have been doubted. The numerous instances recorded by various contributors within the last two years prove how common this coincidence is. The subject is referred to in Dr. Barnes's Lettsomian Lectures on Placenta Prævia.—ED. L.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. Radcliffe; Dr. Fuller; Dr. Brady, M.P.; Mr. Brake Gallway; Mr. Sanderson; Mr. C. Williams; Mr. Hulse; Dr. Cargill, Jamaica; Mr. W. Brooks, Odiham; Mr. Manley, West Bromwich; Dr. Brumwell; Mr. Bell, Leith, (with enclosure;) Mr. Griffin, Weymouth; Mr. Staniland, St. George's, (with enclosure;) Mr. R. P. Fouracre, Hinton, (with enclosure;) Dr. Hunter, Margate; Dr. Smith; Mr. Risk, Faversham, (with enclosure;) Mr. Bleeck, Warminster; Mr. Sword, Clackmannan, (with enclosure;) Mr. W. B. Mathias; Mr. Knaggs, Huddersfield; Dr. Geoghegan, Dublin; Dr. R. Uvedale West, Alford; Mr. Lontfit, (with enclosure;) Mr. Duke, (with enclosure;) Dr. Macdonald, Glasgow, (with enclosure;) Dr. Beales, (with enclosure;) Mr. Martin, Weston-super-Mare; Mr. Lacy, (with enclosure;) Mr. Mosely; Mr. J. Adamson, Glasgow, (with enclosure;) Dr. Herapath, Bristol; Mr. Kent; Mr. Oldaker, Avonfield, (with enclosure;) Mr. Warburton, Paisley, (with enclosure;) Mr. Warrener; Dr. Rufilanchas y Lapeira, Madrid; Mr. Deane, Canterbury; Mr. Greene, (with enclosure;) Mr. Cargeaven; Messrs. Harvey and Reynolds, Leeds; Mr. Powell, Warwick; Mr. Carruthers, Kirkby Lonsdale, (with enclosure;) Mr. Hedges, Sudbury, (with enclosure;) Mr. Moore, Wrotham; Mr. Dymond; Mr. Kinsdon, Combmartin; Mr. Cox, Brighton; Mr. Camp; Mr. Lobb; Mr. Atwell, York; Mr. Wait, Bury, (with enclosure;) Mr. J. Tanner, Tetbury; Messrs. Jay and Co.; Mr. Hastings, (with enclosure;) Mr. Wallace, Halifax, (with enclosure;) Mr. Binks, Wakefield; Mr. G. S. Scott, Whitchurch; Mr. Watts, Liverpool, (with enclosure;) Mr. Presgrave, Leeds; Mr. W. Fisher, Terrington St. Clement; Mr. Elliott, Exeter, (with enclosure;) Dr. Griffiths, Church Stretton; Mr. Coates, (with enclosure;) Mrs. Emily Russell; Mr. T. Westlake; Royal Institution; M.D., Bristol; Enquirer; Y. F., (with enclosure;) H. H.; Justitia; Incisor; A House-Surgeon; J. F. B.; Viridis; M.D.; Veritas; Medicus, (with enclosure;) Kent County Hospital, (with enclosure;) A. L. B.; W. H. H., High Wycombe; Verax; L.R.C.P. Edin.; Chirurgus; Beta, (with enclosure;) A Subscriber; Something more than an Observer; Odontological Society; M.D., (with enclosure;) Anthropological Society; &c.